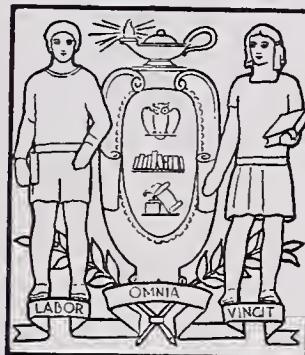


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DEPARTMENT OF PUBLIC INSTRUCTION

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COURSE OF STUDY IN
HEALTH INSTRUCTION
AND
PHYSICAL EDUCATION



GRADES I-VIII

BULLETIN 12

1933

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CHILD HEALTH AND THE SCHOOL PROGRAM

THE CHILDREN'S CHARTER sets forth the following objective for the health instruction program in the elementary schools:

"For every child, from birth through adolescence, promotion of health, including health instruction and a health program, wholesome physical and mental recreation, with teachers and leaders adequately trained."

Good health has much to do with happiness and security. It aids in the attainment of worthy personal ambitions and permits individuals to conserve their resources. It increases the opportunity for cultural advancement and makes possible more cheerful and useful lives. The health of an individual determines his usefulness to his community. The health of a community determines to a large extent its economic and social importance.

An adequate program of school health involves health protection, health correction, health instruction, and physical education. It should develop in every individual the highest physical, mental, social and spiritual possibilities. Such a program cannot be confined to the school room. It must be concerned with the health behavior of the child in all of his activities.

Schools today, to be effective, must be child-centered. Health outcomes in such schools are expressed in terms of the growth of the child as a personality; in terms of physical development, emotionalized health attitudes, desirable adjustments to health situations and conditions that are a part of daily life, and the enjoyment of practices related to these outcomes.

In such a program the conduct of the pupil becomes the chief criterion for success. Health teaching is successful only when the child enjoys and appreciates cleanliness and fresh air; increases in muscular coordination; habitually sits, stands and walks well; secures sufficient rest and sleep; endeavors to avoid conditions that drain vitality; finds satisfaction in wearing suitable clothing; appreciates and chooses nutritious food and wholesome beverages; is hazard conscious and practices safe measures; avoids and appreciates why he should avoid the use of stimulants and narcotics; increases in self-control, cheerfulness and poise, and appreciates the importance of these characteristics.

JAMES N. RULE,
Superintendent of Public Instruction.

March 15, 1933.

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HEALTH INSTRUCTION AND PHYSICAL EDUCATION

INTRODUCTION

THE AIM of the health program is to help the child make desirable adjustments in his way of living so that he may increasingly do his part in securing for himself and others the conditions necessary for health—physical, mental, emotional, and social. The goal set for health teaching, therefore, is correct health practices.

PLAN OF COURSE

To help the teacher see the program in health as a whole, and its relation to opportunities and possibilities for making it function in the life of the child, a chart* has been prepared showing these inter-relationships. The chart has the following divisions:

1. Conditions necessary for the growth and development of the child.
2. Objectives that are related to those conditions toward which the teacher is to work.
3. Activities and procedures necessary to secure these objectives.
4. Evidences of pupil growth in the objectives which universally operate throughout the elementary grades.

CONDITIONS NECESSARY FOR GROWTH AND DEVELOPMENT

The following conditions for growth and development are especially important in relation to child health:

1. **FAVORABLE ENVIRONMENT.** Whatever the situation may be in reference to cleanliness, to ventilation, to lighting, to heating, to furnishings of the classroom, it is the responsibility of the teacher to maintain the good conditions found and to use every possible influence to improve the poor ones. The use of these situations as bases for her health teaching provides opportunities for pupils to establish practices and to build attitudes related to an environment which contributes to health.

2. **SATISFACTORY NUTRITION.** Just as no animal can thrive on an improper diet, so no child can attain his fullest possibilities in growth and development without nourishing food. The teacher who takes advantage of the lunch period where pupils are either selecting a lunch at school or eating food brought from home, is using one of the finest opportunities of the whole day's program for health training and instruction. Here she is able to see evidences of pupil growth in those attitudes and practices related to a wholesome diet. Since eating and sleeping are so essential to the satisfactory nutrition of the child and because these practices are for the most part carried on in the home, the teacher should work with the parents in order to secure the greatest benefits for the children. She will have opportunities to encourage those parents who are carrying out desirable programs

* See insert.

of living and to make suggestions to parents who are not. Through visits to the home, and through organized groups of parents in the school, she may be able to work with them in reaching the goal set for the school child.

3. OPPORTUNITY FOR EXPRESSION. One of the great hungers in life is for activity. This may be satisfied through various types of expression on the part of the child, such as, big muscle activity in a vigorous game; participating in some task as making seats for the library section of the classroom; an activity that gives the child an opportunity to express himself through the painting of a landscape or the writing of a poem.

Throughout the day the child should be helped to think for himself and be given an opportunity to express his thoughts in ways that will give him the satisfaction of a realization of the accomplishment of something worthwhile. Because of the many opportunities for expression through mental activity, the teacher should strive to secure more time for activities that involve the use of big muscles. A better balanced program is needed in the majority of our schools.

4. PROTECTION FROM DRAINS ON VITALITY. In those schools where there is efficient health service, there is the greatest protection from drains on vitality. In any system every teacher is able to contribute to this part of the health program, but where there is neither school physician nor nurse, this cooperation is particularly necessary and valuable.

Protection requires attention to the prevention, detection, and correction of health handicaps. The classroom teacher is a vital factor in this program for the prevention and correction of health handicaps. The health examination properly set up and conducted affords an opportunity for her to secure valuable information as to the need of better health practices and to possible causes of retardation. At the time of the health examination, she should call the attention of the school physician to special cases which she may have discovered. She should be on the alert at all times for conditions which may not have been detected by the physician or which may have developed since the health examination. One of the first steps in solving behavior problems is the detection and fullest possible correction of health handicaps.

The teacher should feel a direct responsibility for the correction of health handicaps. The prevention and correction of such defects may be used as motivating factors in health instruction. Thus, the handicapped child may be stimulated to desire the correction of his handicaps, and the child free from defects may find satisfaction in following practices that may prevent handicaps. With older children a personal talk to explain the significance of these defects may bring results.

No member of the school staff has a better opportunity to urge remedial care than the teacher. In many instances, it may be desirable for her to discuss with the parents the need for the correction of health handicaps. The fact that parents may not immediately carry out the recommendations of the school physician is more frequently due to lack of understanding than to wilful neglect. The teacher should know what medical services are available in the community for children whose parents are unable to pay for treatment.

For the further protection of children the regulations of the Department of Health require that any child or other person showing the following symptoms shall be excluded from school immediately:

- a. An unusual skin eruption.
- b. Swelling about the neck suggesting mumps.
- c. Soreness of the throat.
- d. Symptoms of whooping cough.
- e. Diseases of the eye.

In addition, the teacher should make a report to the health officer of the district in which the school is located as follows:

- a. The fact of exclusion.
- b. The reason for exclusion.
- c. The name and address of the person excluded.

The carrying out of this regulation presupposes a daily classroom survey by the teacher. This may be a formal or an informal survey. In the informal type, the child is not conscious of being looked over. This type is to be desired, providing the teacher keeps it in mind each morning. This means that the teacher must see each pupil as he enters the room. In the formal type of survey the teacher stands with her back to the window, the children passing before her at intervals of about two feet. The morning survey should include cleanliness as well as the symptoms of communicable disease.

The formal type of classroom survey should always be used in case of an epidemic or threatened epidemic. The procedure should be continued during the period of incubation. The survey should be given in the morning so that any child having symptoms of a communicable disease may be excluded as early in the day as possible. This, however, does not free the teacher from the responsibility of being watchful for any symptom that may develop during the day. In addition, (1) a careful check-up of all absentees should be made, (2) the home should be visited when the reason for absence is not definitely known, and (3) any cases showing symptoms of a communicable disease should be reported to the health officer.

No child or other person excluded from school on account of having or of being suspected of having a quarantinable disease shall be readmitted to school until he or she presents a certificate from a physician stating that the condition for which the child was excluded was not communicable, or until he or she presents a certificate from the health officer indicating release from quarantine.

Children suffering from impetigo, scabies, ringworm or favus may attend school when the services of a school nurse or school physician are available daily for the supervision and inspection of the adequacy of the dressings applied to the lesions.

5. PROTECTION FROM PHYSICAL INJURY. The increasing danger to the child due to the rapidly changing situations in our mode of living calls for definite instruction in safe practices. He will need to learn to discriminate between dangers that are to be avoided and those that must be faced, and to develop the skills or practices that

will protect him from the accidents that may occur. The importance of this part of the health program is illustrated in the fact that in the age group from five to fourteen years, accidents cause nearly three times as many deaths as any single disease. That safety education in the schools is effective, is implied in the following quotation from the Report of the Committee on the School Child of the White House Conference on Child Health and Protection in "The School Health Program"¹: "Figures recently compiled by the Federal Bureau of the Census show that during the last seven years, which happens to be about the period during which intensive work in safety education in the schools has been carried on, the accident mortality of adults has increased 32 per cent, while during the same period the accident mortality of children has remained practically stationary in spite of the increase of population and the increased number of automobiles and other hazards."

6. PROVISIONS FOR DESIRABLE EMOTIONAL AND SOCIAL EXPERIENCES. The teacher, who is working for the development of the *whole* child, will readily understand why this sixth condition is added. When all of the first five conditions are taken care of, but the child is continually facing defeat and is in constant fear of meeting the disapproval of parent or teacher, all necessary conditions have not been provided for his best growth and development. Mental, emotional and social aspects must be included, as well as physical, in order to meet the needs of the whole child. No matter how fine his physical condition may be, he cannot be said to be an example of the ideal for which we are working in child health, if he does not have a wholesome personality.

Opportunities for growth in personality come through the daily experiences of the child. The sympathetic teacher will aid the pupil in gaining control of himself and in strengthening traits essential to a well rounded life. The lists for each grade under Wholesome Personality² will suggest attitudes and practices to be encouraged.

To be helpful, the teacher herself should be imbued with a love of justice, enthusiasm, kindness, a sense of humor, and emotional stability. Her criterion for this phase of the program will be the welfare of the *whole* child—that he is ever growing in wholesome social relationships with all others.

OBJECTIVES OF THE COURSE

As indicated on the chart (insert), the primary objectives of health instruction and physical activities are to help the pupils to build emotionalized attitudes toward worthy health practices; to make desirable adjustments to health situations in their environment; to enjoy conditions and practices that are favorable to the promotion of health.

For the convenience of the teacher, the material has been organized

¹ Committee on the School Child of the White House Conference on Child Health and Protection. *The School Health Program*. New York: Century Company. 1932, p. 180.

² The statements under Evidences of Growth in the section on Wholesome Personality include, in the most part, those outcomes found in "Health Behavior" prepared by Dr. Thomas D. Wood and Dr. Marion O. Lerrigo. The book has been most helpful in the preparation of this material.

under thirteen topics which are related to conditions for growth and development. These topics are:

1. Cleanliness	8. Prevention of Communicable Disease and Other Illnesses
2. Fresh Air and Sunshine	9. Clothing
3. Food	10. Safety Education
4. Rest and Sleep	11. First Aid
5. Play and Work	12. Stimulants and Narcotics
6. Posture	13. Wholesome Personality
7. Prevention, Detection and Correction of Health Handicaps	

The first objective of the teacher is to help the pupils to *build up emotionalized attitudes* toward worthy health practices. The playground may be of ample space for all to participate in activities, the lavatory may be equipped with basins, warm water, soap and towels, but if the child does not find pleasure in the games, or satisfaction in clean hands, there will be little carry-over in these activities when he is out of school. There must be something pleasurable or satisfying in the health practice if it is to have any lasting effect on behavior.

The second objective of the teacher is to help the pupils to *make desirable adjustments* to health situations in their environment. Health teaching and instruction must be adapted to the age, ability, and interests of the pupil. Even then the lesson will not be effective until the pupil is able to adapt the suggestions to his individual case. For example, if there is no bath tub in his home, he should be taught how it is possible to keep the body clean when only a basin is available. If only fifteen cents is allowed for his lunch, he should learn how to choose the best food for that amount.

Only as children find satisfaction in doing those things which tend for better ways of living, can we expect these practices to be continued when they are left to their own responsibility. The third objective, therefore, of the teacher is to help the pupils to *enjoy conditions and practices* that are favorable to the promotion of health. Children need to see the advantages of safe practices, of sound teeth, of self-control, of clean and well-nourished bodies. This is not to be the transitory satisfaction of winning stars or prizes, neither that of doing better than some one else, but the satisfaction of finding that one is able to do something that is worthwhile and is able to take responsibility for doing it.

SUGGESTED ACTIVITIES AND PROCEDURES

With health behavior set as the goal in health education emphasis must be placed on activity as the basis of learning. Situations within the pupils' experiences in school, in the home, and in the community should be used as opportunities for health practices and as the basis of discussions on their own health problems. The importance of these procedures must be appreciated by the teacher in order to secure the desired results.

SITUATIONS AT SCHOOL

In column three of the chart (see insert), examples of type situations occurring at school will be found. These will suggest many others

to teachers. Anne Whitney in the Journal of Health and Physical Education for May, 1933, says that to use those situations within the child's environment that will be of most value to the teacher's own particular group "means training ourselves as teachers to search for the dynamic materials which lie richly about the daily lives of pupils, that we may help children to self-education in meeting the real problems of living, the solution of which offers continuously a fresh challenge, and builds in children a self-reliance and the feeling of security which comes only of success in thinking one's self out of a difficulty."¹

DEMONSTRATIONS AND DRAMATIZATIONS

For some of the practices associated with the home and the community, demonstrations and dramatizations are suggested in column four. When the latter are developed, the teacher should remember that the nearer the approach is to a real life situation, the more likelihood there is of a carry-over into practice. For example, instead of making the scene a castle, encourage the choice of homes like their own; instead of animals carrying their lunches to school, suggest that boys' and girls' activities may be made even more entertaining and worthwhile.

One of the best health projects for the elementary grades is The Child's Day. This may include: Wakening in the morning, dressing, preparing for and eating breakfast, helping mother, preparing for school, traveling to school (safety to be emphasized), participating in activities at school, preparing for and eating the noon meal, completing school activities, returning home, playing outdoors, helping mother, preparing for and eating the evening meal, enjoying an evening at home, preparing for bed. The time for rising and retiring will depend upon the age of the group with which the project is used. In like manner all of the objectives for the year in primary grades may be developed. Some teachers have correlated such a program with their language and reading. Others have also included hand-work and completed the project with a movie that illustrated the different situations the child had experienced through the day. For older boys and girls it is good training for each to work out his or her own daily program of living and discuss with the group the points in which they think the programs are strong or should be modified.

SUCCESS MEASURED BY PUPIL GROWTH

Throughout the course emphasis is placed on *evidences of pupil growth*. This course of study contemplates that the teacher shall be a constant student of her own pupils, that she shall observe their work and play, and determine on a basis of these observations the means necessary to make her program effective. Each year the evidences of pupil growth are to be the criteria by which the school and the teacher are to measure the results of health training and health instruction. Pupils should constantly gain in the ability to solve health problems:

¹ American Physical Education Association. Journal of Health and Physical Education. American Physical Education Association, Ann Arbor, Michigan. May, 1933. Page 39.

1. By facing them squarely,
2. By discovering suggestions for their solution,
3. By determining the best suggestions,
4. By applying these suggestions to the solution of the problem.

Some evidences may be measured with paper and pencil tests, but the best types of learning express themselves in desirable emotionalized attitudes and in the value of the practices, skills and knowledges attained.

TIME ALLOTMENT

In the primary grades as the teacher becomes more familiar with the objectives for her group, she will see more possibilities of correlating these attitudes and practices with other subjects of study and in actual classroom situations. She will also be able to help the children to gain many of the simple knowledges through natural experiences and without formal teaching.

In the upper grades the same procedure will be followed but more attention should be given to health instruction whether the work is carried on with a separate period for health instruction or as a part of an integrated program.

The time allocated will depend upon the extent to which health outcomes are integrated with the day's program. The more completely these outcomes can be integrated and correlated with large units of activity the more effective will the work become. For those schools working on an activity basis the "Evidences of Growth" throughout the course furnish excellent checks on the success of the program as it relates to the health objective.

By utilizing all school situations involving health practices as proper subject matter (that is, the morning survey, recess and physical activity periods, lunch periods, school journeys) and by integrating this work with large units of study, the amount of time definitely allocated to health instruction for grades 1-6 may be reduced to approximately the following:

GRADES 1-2	One fifteen-minute period weekly
GRADES 3-4	Two twenty-minute periods weekly
GRADES 5-6	Two thirty-minute periods weekly or Three twenty-minute periods weekly

These periods should be used specifically for developing those phases of the program which have not been completed in the more informal work.

For physical education activities, the following minimum time allotment is suggested:

GRADES 1-4	Eighteen minutes daily
GRADES 5-6	Eighteen minutes daily or Three thirty-minute periods weekly

When this program is followed, two additional fifteen-minute periods daily should be devoted to recess. The thirty minutes usually given over to recess daily should be added to the physical education time. This time should be divided into periods appropriate to the needs of the group. No school session in the first six grades should be without a period for physical activities.

GRADE ONE

I. Cleanliness

EVIDENCES OF PUPIL GROWTH

1. Comes to school with clean face, hands, neck, ears, body, and with clothes clean and tidy.
2. Uses drinking fountain properly or drinks from his own drinking cup.
3. Uses school lavatory and toilet facilities in sanitary manner.
4. Cleans mud from shoes before entering school.
5. Helps to keep school clean and tidy.
6. Refrains from expectorating on the floor at school.
7. Has bowel movement at least once daily, at a regular time, preferably before going to school.

SUGGESTED ACTIVITIES AND PROCEDURES

The morning survey helps to take care of No. 1. This procedure should be a pleasant experience for pupils. The purpose is to have pupils help take responsibility for personal cleanliness and tidiness. Teachers who get results through the spirit of cooperation are working on a higher level than when depending on awards or contests. School situations will provide opportunities for developing practices related to Nos. 2-5. No attention is to be given to No. 6 unless an occasion arises, and then only to the individual. A discussion with the children on the advantage of using the toilet at home rather than at school will help to take care of No. 7. The following teaching unit illustrates how a health lesson may be integrated with daily activities:

USE OF THE DRINKING FOUNTAIN

School situation: First grade children are using the drinking fountain. To many of them this is a new experience.

Purpose: To help pupils to use drinking fountain correctly.

PROCEDURE

1. Refer to bird seen taking drink from a "stream" of water. Question children to learn if they have seen a bird drink from a "stream". Explain to those who do not know "stream", that it is moving water, like the brook, creek or whatever term is familiar to them.
2. Call on some child to demonstrate how he has seen a bird drink. (If children have been sitting for some time, they will enjoy a story play, for example, all fly to a stream and take a drink.)
3. Take children to fountain.
4. Show the children the tiny stream where they can drink.

5. Look at fountain to see if it is clean. If not, help children to see how to take care of refuse which may be there. (Teacher should examine fountain frequently to note height of stream and cleanliness of fixture and bowl.)
6. Demonstrate drinking from the stream.
7. Permit each child to demonstrate that he can drink correctly from the stream.
 - a. Choose first the child who can drink correctly.
 - b. Help to give children a feeling of satisfaction in drinking the right way.
 - c. Prevent failures by discovering means through which all children can reach the stream. (For example, a box on which to stand may be provided if any of the children cannot reach the "stream" easily.)

OUTCOMES

1. Direct
 - a. Drinking correctly from the fountain.
 - b. Finding satisfaction in using the fountain correctly.
2. Indirect
 - a. Standing well. (Teacher may say, "I like the way Joe stands tall.")
 - b. Waiting his turn. (Teacher helps pupils to stand in line so they may see the success of others and each take his turn.)
 - c. Enjoying success of others.
 - d. Helping others to succeed. (Little Tim cannot reach "stream". Children suggest what can be done to help him and determine the best suggestion made.)
 - e. Making friend of janitor. (Seek him for help.)
 - f. Courtesy. (Ask janitor courteously for help and thank him.)
 - g. Safety. (For example, if box is used to help pupils to reach the fountain, children put it in place where no one will stumble over it.)

APPLICATION TO SCHOOL SITUATIONS

1. In a rural school
 - a. Drinking fountain
 - (1) Teach correct use before whole school.
 - (2) Appoint older pupil to help younger children.
 - b. Individual cups
 - (1) If not provided by district, interest pupils in bringing individual cups from home.
 - (2) If any children cannot secure cups from their homes, additional glasses or cups may be provided by the more fortunate households.

- (3) Appoint older pupil to remind younger children to take cups home to be washed in hot water. Where pupils bring lunch, probably the best method is to keep cups in lunch box.
2. In a graded system
 - a. Lesson is important enough to give time for demonstration as presented under Procedure.
 - b. Classroom teacher has daily opportunities to follow up the lesson by commending children who drink satisfactorily.

II. Fresh Air and Sunshine

EVIDENCES OF PUPIL GROWTH

1. Enjoys fresh air in the classroom.
2. Plays outdoors at least four hours daily when weather permits.
3. Knows that windows should be open in the sleeping room.
4. Likes fresh air in the room while sleeping.

SUGGESTED ACTIVITIES AND PROCEDURES

The teacher should help children to realize the advantages of good air in the classroom. In systems depending upon window ventilation stimulate children to note the change when windows are opened. Refer to change of air made in sleeping rooms when windows are opened. Nos. 3 and 4 will be given more attention under Rest and Sleep, page 19. All children should have the privilege of outdoor activity during each session when weather permits. Requiring children to remain indoors as punishment during this period is not in keeping with good health practices. Playing outdoors is much more effective in helping to secure No. 2 than the use of posters, songs and stories about fresh air and sunshine.

III. Food

EVIDENCES OF PUPIL GROWTH

1. Knows how much he weighs.
2. Desires to grow.
3. Knows that the scales show how much he gains in weight.
4. Knows water is needed by plants and children to help them grow.
5. Refrains from eating candy at school except occasionally at lunch time.
6. Knows food which has fallen on the floor or in the street is no longer clean food and should not be eaten.
7. Knows that hands should be washed before eating.
8. Washes his hands before eating at school.
9. Refrains from handling another person's food at school.

10. Drinks from his own cup at school.
11. Drinks a glass of milk at meals when it is provided.
12. Eats slowly, taking small bites.
13. Knows milk helps children to grow.
14. Knows carrots, spinach, oranges, apples, whole grain cereals and dark breads are foods which help children to grow.
15. Knows tea and coffee are not good for growing children.
16. Prefers to drink water and milk instead of tea and coffee.

SUGGESTED ACTIVITIES AND PROCEDURES

Milk as the food to help children grow is to be emphasized in this grade. Situations providing opportunities to stimulate an interest in drinking milk are the lunch periods, the weighing of children, and various projects developed through the year. Nos. 1-3 will be taken care of through the use of the scales. Emphasis is to be placed on "gaining" not on reaching a "normal weight". No. 4 can be shown as children help to water the plants in the room and observe their growth. School experiences should be used in developing Nos. 5-10. Lunch periods at school furnish situations for Nos. 11 and 12, otherwise, demonstrations or dramatizations of a lunch of milk and graham wafers may be given. Nos. 13-16 may be integrated with the Farm Project suggested in the course in science, or in the project, The Child's Day, page 14.

IV. Rest and Sleep

EVIDENCES OF PUPIL GROWTH

1. Takes time for rest or relaxation every day.
2. Knows that windows should be open in the sleeping room.
3. Likes fresh air in the room while sleeping.
4. Likes to sleep in the dark.
5. Goes to bed willingly when bedtime comes.
6. Is in bed at rest or asleep twelve hours.

SUGGESTED ACTIVITIES AND PROCEDURES

Time is to be taken in school for children to learn to relax and rest quietly for a few minutes each day. Those who are not strong should rest for a longer period. After the children have discussed the need of sleeping twelve hours, they will find the making of a little clock face with the hour hand an interesting project. By fastening the hand with a round head paper fastener, it may be movable. The children will enjoy placing the hand at the hour for retiring and then at bedtime changing it to the hour for rising. When a doll is brought to school, discuss preparation for bed, the care of clothing, turning out lights, and opening the windows. When furniture can be made to fit the doll, all these activities may be demonstrated

each afternoon by a different child. This procedure could be carried out until each child has had an opportunity to show his ability in remembering all the duties included when putting the doll to bed.

V. Play and Work

EVIDENCES OF PUPIL GROWTH

1. Enjoys active play.
2. Enjoys playing with other children.
3. Plays vigorously outdoors at least four hours daily when weather permits.
4. Is willing to take his turn in games.
5. Takes part in group games and activities.
6. Responds to signals.
7. Responds to different rhythms, without necessarily keeping step perfectly.
8. Is able to express ideas through action and dramatic play.
9. Often shouts and laughs while at play.
10. Is able to carry a small chair or stool.
11. Is able to carry a small pail of water or shovel of sand without spilling contents.
12. Works cheerfully.
13. Is able to wade, splash, skip stones, and paddle.
14. Assumes responsibilities in classroom in keeping with his ability.

SUGGESTED ACTIVITIES AND PROCEDURES

Recess periods should be so arranged that contributions may be made to every one of these evidences of growth in Nos. 1-9. This requires direction on the part of the teacher during play periods. Classroom activities should afford opportunities for Nos. 10-12. If there is no opportunity for the activities included in No. 13, the teacher may discuss with the children where they have participated in these activities and what safety precautions were used. No. 14 would include watering plants and other simple tasks. For games and other activities in grade one, see pages 149-150.

VI. Posture

EVIDENCES OF PUPIL GROWTH

1. Sits and stands tall.
2. Walks with toes pointing straight ahead.
3. At school chooses chair or seat suited to his size.

SUGGESTED ACTIVITIES AND PROCEDURES

Posture is not discussed with pupils in this grade. The teacher notes any cases that need attention and handles these individually. Care is taken in making sure that all are properly seated and that the children learn to choose chairs and seats suited to their size.

VII. Prevention, Detection, and Correction of Health Handicaps

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Knows that the physician, nurse, and dentist are friends of children.
2. Is interested in his health examination.
3. Cooperates with parents and physician when treatment for any handicap is necessary.
4. Has a friendly attitude toward the hospital.

SUGGESTED ACTIVITIES AND PROCEDURES

The personal experiences of children are used to secure results in Nos. 1-3. The use of good pictures of a physician, a dentist or a nurse helping children makes a favorable approach. Discuss with children what these friends will think of children who help by being ready to do what is asked of them. Demonstrate how the children can help in the health examination by doing promptly what the doctor or nurse requests. For No. 3 situations like the care of glasses may be used. When the announcement is made that some one of their acquaintances is in the hospital, lead the children to think of it as a place where people are helped to get well.

CARE OF THE EYES

EVIDENCES OF PUPIL GROWTH

1. Holds his book correctly while reading.
2. Reads or works in a good light at school.
3. Goes to an older person to have foreign particles removed from the eye.

SUGGESTED ACTIVITIES AND PROCEDURES

The school has a direct responsibility to see that pupils have correct experiences at school in Nos. 1-3.

CARE OF THE FEET

EVIDENCES OF PUPIL GROWTH

1. Removes rubbers or overshoes when indoors.
2. Knows that rubbers or overshoes should be worn in wet weather.
3. Stands and walks with toes pointing straight ahead.
4. Puts on hose and shoes carefully to prevent rubbing.

SUGGESTED ACTIVITIES AND PROCEDURES

For Nos. 1-3 use real situations in school. A demonstration of No. 4 may be given by one child and then others may try to carry out the necessary procedure.

CARE OF THE NOSE, THROAT, AND EARS

EVIDENCES OF PUPIL GROWTH

1. Brings a clean handkerchief to school each morning. (A clean cloth or soft paper is acceptable.)
2. Covers cough and sneeze with hand or handkerchief.
3. Uses his own handkerchief.
4. Blows the nose gently and keeps it clean.
5. Breathes through the nose. (If not, the cause should be learned.)
6. Uses a well modulated speaking and singing voice: refrains from yelling or screaming when talking and singing.

SUGGESTED ACTIVITIES AND PROCEDURES

Include a clean handkerchief or substitute in morning survey. For Nos. 2-4 give demonstration to include all three. The teacher's example will help most in securing the desired results in No. 6. If there is no school nurse or physician the teacher should follow up any case of nasal obstruction, or of discharging ear. This may be done through direct contact with the parent or reporting the condition to someone who will explain to the parents the health handicap discovered. Parents are often unaware of the seriousness of these conditions and the results on the future health of the pupil.

CARE OF THE SKIN, HAIR, AND NAILS

EVIDENCES OF PUPIL GROWTH

1. Comes to school with clean face, hands, neck, ears, and body.
2. Knows that children's bodies should be kept clean by taking baths.
3. Takes pride in having a bath.
4. Knows that hands should be washed before eating.
5. Washes hands before eating at school.
6. Enjoys having hair clean and brushed.

SUGGESTED ACTIVITIES AND PROCEDURES

The morning survey will take care of No. 1. For Nos. 2-3 discuss birds taking baths. Show picture of baby in tub. Children tell what they do to help mother when she gives them baths. Children may make from old material wash cloths with fringed edges. A hem would be too difficult. School experiences may take care of Nos. 4 and 5. If lunch is not brought to school regularly, a little party where only a wafer is served will provide an occasion. Demonstrate No. 6 in class.

CARE OF THE TEETH AND MOUTH

EVIDENCES OF PUPIL GROWTH

1. Brushes the teeth daily.
2. Uses his own toothbrush.
3. Knows that the dentist is a friend and goes to visit him willingly when the opportunity is provided.
4. Refrains from putting fingers, pencils and other foreign articles in the mouth.
5. Knows that milk helps to make good teeth.

SUGGESTED ACTIVITIES AND PROCEDURES

To encourage children in No. 1, the teacher examines the teeth occasionally to discover improvement and demonstrates the correct way to brush the teeth. Teacher explains the reason for No. 2. Confidence in the dentist is developed and reports of visits to his office listened to with interest by the class and teacher. Where there is a dental hygienist, the teacher should encourage the children to keep the teeth looking as well as when first cleaned. Emphasize drinking milk for building strong teeth.

VIII. Prevention of Communicable Disease and Other Illnesses

EVIDENCES OF PUPIL GROWTH

1. Cooperates with parents and school authorities in submitting to immunization against smallpox and diphtheria when the opportunity is given.
2. Refrains from putting fingers, pencils and other foreign articles in the mouth.
3. Refrains from exchanging gum or candy that has been in the mouth, and from sharing partly eaten food, as apples.
4. Drinks from his own cup.
5. Refrains from playing on another's harmonica.
6. Covers cough and sneeze with hand or handkerchief.

SUGGESTED ACTIVITIES AND PROCEDURES

The attitude of the teacher toward immunization is reflected by the pupils. When this opportunity is given for the children or their younger brothers and sisters, the teacher should discuss the situation and try to help to build favorable attitudes toward immunization. For Nos. 2-6 school situations provide opportunities for correct practices. Each child should be provided with an individual pencil.

IX. Clothing

EVIDENCES OF PUPIL GROWTH

1. Comes to school with clothes clean.

2. Enjoys clean and tidy clothes.
3. Removes wraps and rubbers when indoors.
4. Knows that clothing helps to keep a person warm.
5. Knows that rubbers or overshoes should be worn in wet weather.
6. Wears his own head covering.
7. Is able to remove all day clothing at night and to air it.

SUGGESTED ACTIVITIES AND PROCEDURES

For Nos. 1-6 school experiences furnish opportunities for growth in these outcomes. In extreme cases where there is no help from the home, sometimes it is advisable to arrange for the child to make his toilet and to dress at school. The clothes worn in school are changed before going home at night. This is done only in cases where no other way is possible for the child to be presentable. Tact and sympathy are needed on the part of those who handle this problem. Lessons on clothing may be motivated by dressing a doll at school. This may be carried out with the project suggested under Rest and Sleep, page 19.

X. Safety Education

GENERAL OUTCOMES

EVIDENCES OF PUPIL GROWTH

1. Increasingly discovers safer ways of carrying out his daily program of living.
2. Is willing to be careful that no one may be hurt.

SUGGESTED ACTIVITIES AND PROCEDURES

One of the problems to be discussed most frequently with the group is, "What is a safer way of doing this?" At times the decision will be so important, the discussion will take precedence over the usual activity planned by the teacher; at other times, the question will not be presented until there is a period for oral English. Thoughtful suggestions made by the children should be appreciated; exaggerated statements should be discouraged.

TRAFFIC AND THE USE OF STREETS AND HIGHWAYS

EVIDENCES OF PUPIL GROWTH

1. Says distinctly his own name, parent's name and address.
2. Stops at curb and looks in both directions before crossing street or alley.
3. Knows the safest route from home to school.
4. Goes directly to and from school.
5. Has a friendly attitude toward traffic officers.
6. Obeys "Stop" and "Go" signals, traffic officers, and safety patrol guards.

7. Knows that the traffic officer helps people to cross streets safely.
8. At railroad crossings stops, looks for signals and is sure that no train is coming either way before crossing.
9. Avoids running out from behind parked cars.
10. Knows the danger in crossing alleys or drive-ways (cars backing out).
11. Keeps to the right in halls or on the street when passing others.
12. Keeps on the left facing traffic when walking on the highway.
13. Gets on or off the bus in the safest way.
14. Goes the safest way from the bus to the school house or home, and from the school house or home to bus.
15. Observes the regulations for safety in using school bus.
16. Is considerate of the safety of others as well as self in the use of the school bus.
17. Avoids handling fallen or dangling wires.
18. Knows how to carry an umbrella safely, especially when crossing street.
19. Stays with group of children on school journeys.
20. Knows that children should not go with strangers.
21. Knows that children should eat nothing received from strangers without asking parent's permission.

SUGGESTED ACTIVITIES AND PROCEDURES

Some game requiring the player to give his name, parent's name and address will help in practicing No. 1. The safety hazards which the pupils are certain to experience should be the ones to which the teacher gives most attention. Select them as the safety problems to be solved by the class, and whenever possible go with the group to demonstrate the safest way to meet the situation, for example, to the corner where traffic is dangerous, to the school bus, to a railroad if that is near. Discuss cooperation with traffic officers and safety patrols. For the other experiences that are likely to occur there should be discussions on or demonstrations of what to do. Ask children to draw pictures of "what to do" in some of these situations, for example, Nos. 17, 18, 19. In discussing incidents relative to Nos. 20-21 the teacher should help children to think the situations out intelligently without developing undue fear. Help the children to feel that first graders know how to meet such situations.

PREVENTION OF FIRE

EVIDENCES OF PUPIL GROWTH

1. Knows what to do when one hears the fire signal in school.
2. Knows that children should call older persons (grown-ups) in case of fire.

3. Keeps safe distance from hot water, fires (in open fireplace, in stoves, bonfires).
4. Knows that matches should be kept in safe places.
5. Carries no matches in pockets.
6. Knows that fireworks are dangerous.

SUGGESTED ACTIVITIES AND PROCEDURES

The fire drill takes care of No. 1. As incidents occur that bring up the subjects mentioned in Nos. 2-5, teacher help the pupils to understand the safe way for little children to follow. No. 6 should be taken care of just before vacation. An opportunity comes when any mention is made of the Fourth of July. Plan to have the discussion lead pupils to tell how it is possible for first graders to have a good time without fireworks.

PLAY AND OTHER ACTIVITIES

EVIDENCES OF PUPIL GROWTH

1. Enjoys taking part in active play without undue fears.
2. Is learning control in walking, running, and playing safely.
3. Knows that the street is not a safe place in which to play only while closed to traffic.
4. Knows how to use play toys and apparatus safely.
5. Is careful when using playground apparatus.
6. Avoids running "blindly" on playground.
7. Refrains from throwing sand, stones or other things that might do harm.
8. Forms habits of orderliness in caring for toys and materials used.
9. Places book, lunch box, and other objects where no one may stumble over them.
10. Refrains from running with sharp objects in the hands or with sticks in the mouth.
11. Refrains from putting nails, screws, tacks and the like in his mouth.
12. Knows the danger of protruding nails in boards.
13. Cuts away from himself when using a knife.
14. Avoids standing in front or back of a bandsaw, lathe, circular saw or other power-driven machinery.
15. Knows the danger of unsound or small branches breaking when climbing trees.
16. Plays only on sidewalk or in yard, park, vacant lot, playground, street closed to traffic.

17. Knows the safer places where children may play in the neighborhood.
18. Plays with kiddie car or tricycle only on sidewalk or in the yard.
19. Avoids running into other children when riding tricycle, or kiddie car.
20. Plays with pets without teasing them.
21. Knows that children should play only with healthy pets; that sick pets should not be fondled.
22. Avoids strange animals.
23. Keeps away from utensils of hot water and from hot irons.
24. Is cautious when near bodies of water or utensils containing water.
25. Is careful when playing in wading pool or stream of water.

SUGGESTED ACTIVITIES AND PROCEDURES

One of the best opportunities for helping children to improve in safety practices is on the playground. On the very place where there is a chance for accidents the pupils should be helped to determine how to avoid them. For example, glass broken on the playground, should be given proper care before continuing a game. The teacher may discuss with children safe places for and safe ways of playing at home. Free hand drawings illustrating these points may be made. Discussions should be related to play and activities appropriate for the season.

PREVENTION OF ACCIDENTS IN THE HOME

EVIDENCES OF PUPIL GROWTH

1. Is learning to use scissors with safety.
2. Carries safely chairs and tools used.
3. Knows what to do with pins and needles when he finds them.
4. Takes care of toys and other objects so as to help prevent falls.
5. Knows that he should not eat pills or take medicine unless given by parent or physician.

SUGGESTED ACTIVITIES AND PROCEDURES

Opportunities for practices related to Nos. 1-4 should be used whenever situations for these occur. Time should be taken to discuss No. 5 with the child before he experiences receiving free packages of tablets or pills on the street.

XI. First Aid

EVIDENCES OF PUPIL GROWTH

1. Calls for help from an older person in case of emergency.

2. Asks for dressings for sores or cuts when necessary.
3. Knows that minor cuts and injuries should be treated with care.
4. Shows all scratches and abrasions to older person (mother, teacher).

SUGGESTED ACTIVITIES AND PROCEDURES

Through some story or incident help the child to know the importance of No. 1. First aid measures should be taught as experiences occurring in school call for them, for example, the removal of a sliver, the care of cuts and abrasions. These will take care of Nos. 2-4.

XII. Stimulants and Narcotics

EVIDENCES OF PUPIL GROWTH

1. Prefers to drink water and milk instead of tea and coffee.
2. Knows that water is needed by plants and children to help them grow.
3. Knows milk helps children to grow.
4. Knows tea and coffee are not good for growing children.

SUGGESTED ACTIVITIES AND PROCEDURES

Positive rather than negative teaching should be emphasized. In this grade stress is placed on drinking water and milk rather than on the non-use of alcoholic drinks. A sufficient supply of good drinking water and sanitary equipment for drinking should be provided. For Nos. 1-4 lessons should be correlated with those on milk under Food, page 19.

XIII. Wholesome Personality

EVIDENCES OF PUPIL GROWTH

1. Shows a wholesome interest and curiosity concerning the world about him.
2. Is friendly with other children.
3. Enjoys play.
4. Is able to amuse himself and is not dependent on adults in play.
5. Is not timid or afraid, for example, of domestic animals, storms, or the dark.
6. Is not afraid of other children, or strange adults such as teacher, nurse, physician, and policeman.
7. Is generally happy and cheerful.
8. Is interested in making other people happy and is willing to help them.
9. Has a place for his own possessions and is learning to care for them.

10. Is willing to share his possessions.
11. Enjoys work such as school work, and works cheerfully.
12. Is willing to take part in group activities.
13. Gives attention to whatever he is doing.
14. Completes successfully tasks that he can do with reasonable effort.
15. Keeps hands off other persons, except as appropriate in games.
16. Says "Please, thank you, excuse me, good morning, good-by, and yes or no" distinctly.

SUGGESTED ACTIVITIES AND PROCEDURES

Changes in the environment and activities suggested in the course in science provide opportunities for No. 1. Meeting new teachers, new pupils, and making adjustments to new experiences through the school organization provide many situations for developing a wholesome personality. The richest field for such growth is on the playground when under the direction of a capable and sympathetic teacher.

GRADE TWO*

I. Cleanliness

EVIDENCES OF PUPIL GROWTH

1. Increasingly takes more responsibility in carrying out practices included for grade one.
2. Washes hands after visiting the school toilet.
3. Helps to keep flies and mosquitoes out of the home by closing doors and screens.

SUGGESTED ACTIVITIES AND PROCEDURES

The morning survey helps to develop responsibility for the practices emphasized in grade one. Opportunities to help keep the library table and other materials in order are desirable. No. 2 is considered one of the most necessary health practices. Each year more schools are making it possible for pupils to carry out this practice. If the class builds a house as a spring or fall project, the inclusion of a screen door may be made a background for developing a sense of the importance of No. 3. Pictures made by the children of the screen doors they close at home may be correlated with this activity. Attention should be given to devices used to keep the door closed.

II. Fresh Air and Sunshine

EVIDENCES OF PUPIL GROWTH

1. Knows that living in the fresh air and sunshine helps children to grow strong.
2. Observes the effect of sunshine on seeds sown and plants growing at school.
3. Sleeps with windows open but knows that he should be protected from strong drafts.

SUGGESTED ACTIVITIES AND PROCEDURES

Every child should be outdoors during the play period when weather permits. Correlate No. 2 with science. When possible, space on the grounds should be given for a few plants which children may watch with interest to note growth and changes. Discussions on No. 3 are to be correlated with stories in readers. More attention will be given to this point under Rest and Sleep, page 32.

III. Foods

EVIDENCES OF PUPIL GROWTH

1. Enjoys eating a variety of wholesome vegetables.

* In Grade One due to many experiences, the child necessarily required an initial introduction to many practices. The teacher should check the outcomes listed for that grade to learn which of these need continued emphasis. In such a case, a new approach should be used and activities introduced which appeal to the interest of the older group.

2. Learns to like new vegetables by taking larger portions each time the vegetable is served.
3. Knows that chewing food thoroughly, usually makes it taste better.
4. Eats at least two vegetables other than potato daily (when provided).
5. Knows that a green leafy vegetable should be eaten daily.
6. Washes fruit before eating it.
7. Knows that ripe fruits help children to grow and to keep well.
8. Knows that candy eaten between meals spoils appetite for wholesome foods.
9. Brings fruit instead of candy to school when he wishes to eat between meals.
10. Refuses candy, powders, and drinks given away by strangers.
11. Prefers drinks made from fresh fruit juices instead of "soft drinks" that are artificially flavored or colored.
12. Drinks water and milk instead of tea and coffee.
13. Sits down while eating lunch at school and chews food thoroughly.
14. Refrains from taking bites of another's food.

SUGGESTED ACTIVITIES AND PROCEDURES

Vegetables and fruits as necessary foods for growth are to be emphasized in grade two with continued attention to milk which was initially stressed in grade one. An approach to the lessons on vegetables may be a carrot party. These are washed carefully and cut into strips which are eaten slowly and chewed well to get the sweet taste. Hands should be washed before eating. Vegetable charts may be made showing the vegetables children are learning to like. A visit to a market, to a grocery or garden to become acquainted with new vegetables will make a worthwhile school journey. The preparation of a fresh fruit drink like lemonade on a warm day provides a natural approach to a discussion of the value of fruits. Other interesting activities relating to this topic include planning a refreshment booth for growing children that may be used at a fair; dramatizations of the trip to the fair, meeting a stranger who offers a child candy, the refusal of the child to accept this candy, children choosing refreshments at the booth. The use of these activities will provide opportunity for discussions and practices related to the unit on Stimulants and Narcotics, page 39.

IV. Rest and Sleep

EVIDENCES OF PUPIL GROWTH

1. Knows that sleep and rest help young animals and children to grow.
2. Has a regular bedtime and keeps it.
3. Has a quiet time just before retiring.

4. Goes to sleep lying on the side, comfortably relaxed, using a moderately low pillow, if any.
5. Sleeps with window open but knows he should be protected from drafts.

SUGGESTED ACTIVITIES AND PROCEDURES

Ask children to observe pets while they sleep. Discuss with the group the sleep habits of the animals they know. Connect this discussion with a consideration of the sleep habits the children are forming such as quieter play just before retiring, regular bedtime, preparation for bed, the care of lights and windows, and going to sleep. Encourage a discussion on why a favorite lullaby they sing is a good sleep song. Suggest that pupils find and bring to class little poems on sleep. The use of a letter similar to the following may be helpful in some cases.

Dear Mother,

We are trying to improve in our sleep habits. Will you please check the one on which you think I need to work?

Going to bed cheerfully.

Going to bed on time.

Preparing for bed.

Lovingly,

Jane

V. Play and Work

EVIDENCES OF PUPIL GROWTH

1. Knows that the best place to play is outdoors.
2. Knows how children should be dressed when playing.
3. Plays fair, that is, respects the rights of the group, takes turns.
4. Invites shy children to play games.
5. Is able to hammer and pound.
6. Keeps materials clean and in order.

SUGGESTED ACTIVITIES AND PROCEDURES

As stated for grade one, every child should have an opportunity to play during each session and this should be carried on outdoors when weather permits. Correlate No. 2 with handwork that illustrates suitable clothing for play. Include pockets for handkerchief. In schools where pupils participate in building projects opportunities are given for No. 5. Seats are made from orange crates, houses are built from boxes secured from various sources.

For games and other activities in grade two see pages 151-153.

VI. Posture

EVIDENCES OF PUPIL GROWTH

1. Holds body in easy erect position when standing.
2. Selects suitable chair when possible and sits in it properly.

SUGGESTED ACTIVITIES AND PROCEDURES

Help children to stand well without calling attention to shoulders. Demonstrate the choice of chairs suitable for children by having different sizes for them to try. Discuss with them the chairs they use at home.

VII. Prevention, Detection and Correction of Health Handicaps
GENERAL**EVIDENCES OF PUPIL GROWTH**

1. Knows that the physician, nurse, and dentist are friends of children.
2. Is interested in his health examination.
3. Cooperates with parents and physician when treatment for any handicap is necessary.
4. Has a friendly attitude toward the hospital.

SUGGESTED ACTIVITIES AND PROCEDURES

Use contacts of children with the school nurse, the physician, and dentist as opportunities to develop friendly feelings toward them. Whenever a child has been given special instruction relative to the correction of any health handicaps, the teacher should help child to cooperate in securing results. When a child's experience is associated with the hospital, the teacher should use the situation for developing No. 4.

CARE OF THE EYES**EVIDENCES OF PUPIL GROWTH**

1. Knows that looking directly at the sun or very bright light strains the eyes.
2. Avoids letting the light shine in his eyes.
3. Refrains from rubbing the eyes, or touching them with inappropriate articles.

SUGGESTED ACTIVITIES AND PROCEDURES

In games on the playground help children to learn the advantages of not facing the sun. Situations in the classroom and on the playground will provide practices included in Nos. 1-3.

CARE OF THE FEET**EVIDENCES OF PUPIL GROWTH**

1. Knows that feet should be kept clean and toe nails short and clean.
2. Wears rubbers at appropriate times.

SUGGESTED ACTIVITIES AND PROCEDURES

Secure pictures of children with bare feet. Help class to appreciate the appearance of clean feet with nails carefully trimmed. Discuss with children the care of the feet when going barefooted. Help pupils to understand why "water proof" shoes do not require rubbers.

CARE OF THE NOSE, THROAT, AND EARS

EVIDENCES OF PUPIL GROWTH

1. Refrains from putting inappropriate articles in the nose or ears.
2. Learns to wash the ears carefully using warm water and the tip of the finger covered with a soft cloth.

SUGGESTED ACTIVITIES AND PROCEDURES

Situations in the classroom may be capitalized in the interest of Nos. 1 and 2. Children, also, may be shown by demonstrations how to wash the ears properly.

CARE OF THE SKIN, HAIR, AND NAILS

EVIDENCES OF PUPIL GROWTH

1. Washes hands and face night and morning and at other times when needed.
2. Dries hands and face thoroughly.
3. Is learning to care for his finger nails.
4. Is learning to brush his hair.
5. Washes hands after visiting the toilet at school.

SUGGESTED ACTIVITIES AND PROCEDURES

The morning survey will furnish an opportunity to give attention to Nos. 1-4. A demonstration of Nos. 3-4 will increase interest in these two phases of the toilet. To carry out No. 5 better hand-washing facilities may have to be provided in some schools. Help children to make the best use of facilities available.

CARE OF THE TEETH AND MOUTH

EVIDENCES OF PUPIL GROWTH

1. Brushes the teeth in approved manner at least in the morning and before retiring.
2. Knows that keeping the teeth clean helps to keep them from decay.
3. Knows that vegetables and fruits help to make strong teeth.
4. Knows that the six-year molars are permanent teeth and should be given proper dental care.

SUGGESTED ACTIVITIES AND PROCEDURES

During the morning survey commend those pupils who have clean teeth. Those children whose teeth show the need of cleaning by the dentist and who come to school with food lodged between the teeth and gums should be given individual attention. With the use of little hand mirrors help pupils to find their six-year molars and examine them to discover any cavities. Often parents think these molars are temporary teeth. Call attention to the appearance of teeth after eating an apple. Suggest that when lunch is brought to school, a good plan is to eat fresh fruit last because of its cleansing effect.

VIII. Prevention of Communicable Disease and Other Illnesses

EVIDENCES OF PUPIL GROWTH

1. Knows that children should keep away from those who have communicable disease.
2. Knows that eating with clean hands, drinking clean milk and water, and eating clean food, help to keep children well.
3. Knows why one should refrain from coughing or sneezing in another person's face.
4. Refrains from exchanging gum or candy that has been in the mouth, and from sharing partly eaten food as apples.

SUGGESTED ACTIVITIES AND PROCEDURES

When a quarantine card appears on a house in the community, draw a house on the blackboard and print the name of the disease on a card by the door. Have pupils learn the word. Discuss with them what precautions they should take in such a case. For No. 2 work out, with the children's help, a list of practices related to cleanliness that help to keep people well. Use school situations for Nos. 3 and 4.

IX. Clothing

EVIDENCES OF PUPIL GROWTH

1. Knows how children should be dressed when playing.
2. Knows that clothing should be heavier in cold weather than in warm weather.
3. Refrains from wearing too much clothing.
4. Knows that wet clothing makes one cold and that it should be removed or dried as soon as possible.
5. Avoids getting unnecessarily wet and removes damp clothing as soon as possible.
6. Hangs wraps properly at school.
7. Helps to prevent tripping by fastening clothes properly, such as shoe laces, long belts or sashes.

SUGGESTED ACTIVITIES AND PROCEDURES

Stimulate discussions and call for illustrations of all points included in Nos. 1-7. Demonstrations of Nos. 6-7 should be given. Correlate No. 2 with science when weather is studied.

X. Safety Education

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Prefers to follow safety precautions to prevent accidents.
2. Is willing to work in cooperation with others for safety.

SUGGESTED ACTIVITIES AND PROCEDURES

Daily incidents at school and correlations with other lessons should be used.

SAFETY EDUCATION RELATIVE TO TRAFFIC AND THE USE OF STREETS AND HIGHWAYS

EVIDENCES OF PUPIL GROWTH

1. Helps younger children in crossing streets.
2. Knows how to get on and off a street car safely.
3. Refrains from leaning out of a street car or automobile, or putting any part of body out.

SUGGESTED ACTIVITIES AND PROCEDURES

Stimulate a sense of responsibility on the part of the second grade for the safety of pupils in the first grade while on the street. A sand-table project or a movie may serve to illustrate the situations for safety practices on the street and highway learned in grade one. The added lesson for this year will be, How may we help the First Grade? If No. 2 is not within the experience of the class, no attention need to be given to it.

PREVENTION OF FIRE

EVIDENCES OF PUPIL GROWTH

1. Knows what the fireman does for us.
2. Takes precautions for the prevention of fire in reference to matches, the hanging of clothing near a stove, carefulness around Christmas trees, refraining from playing with Fourth of July fireworks, care around bonfires and burning leaves.
3. Knows what to do when clothing is afire.
 - Keeps cool and acts quickly.
 - Smothers flame by wrapping woolen blanket or rug about body.
 - Wraps from head down that flames may be kept from face.
 - Rolls on floor or ground.
 - Refrains from running.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss with class what the fireman does for us, then lead children to think how they can help the fireman. Correlate the suggestions with the season. The time for discussion about bonfires and burning leaves is when children may be raking leaves and watching the fires. Dramatize No. 3. By placing a newspaper on the floor, a boy can roll on the floor to show how he would smother the flames.

PLAY AND OTHER ACTIVITIES

EVIDENCES OF PUPIL GROWTH

1. Knows active games which are safe to play.
2. Helps younger children to play in safety.

3. Helps to keep play spaces safe by keeping them free from glass, nails, fruit skins, tin cans, and sharp stones.
4. Knows where he may play safely with roller-skates, coasters, sleds or play wagons.
5. Avoids running into street after ball without first looking both ways.
6. Refrains from running in building (except in games) and into crowds on playground.
7. Is careful to keep fingers, knees and clothing out of the way when using a handsaw.
8. Knows the danger in clashing two hammer heads together. (Small splinters of steel may injure body.)
9. Is careful when visiting the zoo.
10. Helps to protect useful and friendly birds and animals.

SUGGESTED ACTIVITIES AND PROCEDURES

The situations at school will furnish opportunities for practices related to Nos. 1-6. If pupils are supplied with tools for building, Nos. 7 and 8 can be learned through experience at school. Discussion of visits to zoo and of hikes taken with parents will open the way for stimulating interest in Nos. 9 and 10.

PREVENTION OF ACCIDENTS IN THE HOME

EVIDENCES OF PUPIL GROWTH

1. Carries and handles sharp-pointed objects at school in safe manner.
2. Goes up and down stairs carefully.
3. Helps younger children at home to practice safety.

SUGGESTED ACTIVITIES AND PROCEDURES

School situations will help to strengthen practices related to Nos. 1 and 2. In discussion on No. 3 help children to understand this means not only their own brothers and sisters, but any little visitor. Have children draw pictures to show how they are working on No. 3. The following project has been found helpful.

PREPARATION FOR PUPPET SHOW*

PURPOSE. To help pupils to use sharp objects carefully.

PROCEDURE. Building a house for a puppet show of The Three Bears, and dressing puppets.

Reading. The story of The Three Bears.

English, Oral. Making up the story of The Three Bears for use in a play for children, organizing the parts for Father Bear, Mother, Baby and Golden Locks.

* Prepared by Marion Riegel, classroom teacher, Palmerton, Pennsylvania.

Dramatization. Acting of the play by the children so that they may practice their parts and be ready for the puppet show.

Art. Making the bears' house which requires the careful use of sharp tools.

1. Cutting the box for the house.
2. Cutting windows and doors.
3. Sewing—making the bears, and dresses for Golden Locks.
4. Sewing curtains for the windows.
5. Cutting furniture for the bears.

Other Activities. Discussing and demonstrating how accidents with sharp tools may be prevented at school and at home.

1. Holding tools correctly, as knives, scissors, needles.
2. Putting tools in proper places.
3. Walking, not running when carrying pointed objects.
4. Carrying sharp tools correctly.
5. Carrying sharp objects carefully.
6. Refraining from pointing sharp objects at people.
7. Placing pins and needles in a cushion, box or case when not in use.
8. Refraining from putting pins or needles in mouth.
9. Refraining from putting needles in clothes.

Pantomime. Children suggest tools to be carried by children in pantomime.

Music. The Scissors Grinder. Ask for some child to show how the little boy carried the scissors to the scissors grinder.

SAFETY OUTCOMES

Knowledge. Knows ways of preventing accidents in school and at home when carrying and using sharp tools.

Practices or Skills. Uses pins, needles, scissors, and knives at school with safety. Takes proper care of sharp tools in the class room. Handles sharp tools and objects correctly in school.

XI. First Aid

EVIDENCES OF PUPIL GROWTH

1. Is taking more responsibility in the care of minor cuts and injuries.

SUGGESTED ACTIVITIES AND PROCEDURES

As the teacher or nurse gives first aid, help the pupils to understand its value.

XII. Stimulants and Narcotics

EVIDENCES OF PUPIL GROWTH

1. Drinks water and milk instead of tea and coffee.
2. Prefers drinks made from fresh fruit juices instead of "soft drinks" that are artificially flavored or colored, and other drinks unfavorable to health.
3. Brings fruit instead of candy to school when he wishes to eat between meals.
4. Knows that ripe fruits help children to grow and to keep well.
5. Knows that candy eaten between meals spoils appetite for wholesome foods.
6. Refuses candy, powders, and drinks offered by strangers.

SUGGESTED ACTIVITIES AND PROCEDURES

The activities suggested under Foods, page 31 will provide for Nos. 1-6.

XIII. Wholesome Personality

EVIDENCES OF PUPIL GROWTH

1. Is obedient and respectful to those in authority.
2. Refrains from interrupting others needlessly.
3. Tends to be truthful.
4. Has self-confidence but is not conceited.
5. Does his work promptly and without procrastination.
6. Keeps work materials clean and in order.
7. Plays fair, that is, respects the rights of the group, takes turns.
8. Shows kindness to those who are weaker or younger and does not tease or bully.
9. Enjoys humorous situations without discomfort to others.

SUGGESTED ACTIVITIES AND PROCEDURES

The daily activities in the school program furnish situations for developing the desirable traits included in Nos. 1-9. The teacher must study the individual pupil and help him to grow in wholesome personality.

GRADE THREE*

I. Cleanliness

EVIDENCES OF PUPIL GROWTH

1. Increasingly takes more responsibility for neat appearance of himself, the schoolroom and the playground.
2. Expectorates only in suitable places.

SUGGESTED ACTIVITIES AND PROCEDURES

The morning survey should continue but less time should be required for this as health practices are improved. Children take turns in serving as helpers in keeping school and playground tidy. Occasionally the teacher names a boy and a girl as visitors. They examine playground, entrances, halls, toilets, and classroom. A report is given on the conditions found and on the appearance of the class.

II. Fresh Air and Sunshine

EVIDENCES OF PUPIL GROWTH

1. Generally chooses fresh air recreation in preference to indoor play.
2. Helps with opening and closing of windows when they are easily managed.
3. Opens windows before going to bed.

SUGGESTED ACTIVITIES AND PROCEDURES

The outdoor program should consist of activities that children of this age enjoy. In any building project of a room or house, help pupils to demonstrate window ventilation. Call on pupils who open their windows before going to bed to illustrate on the blackboard how they adjust windows, or if windows in the room can be used, to demonstrate with the teacher's help their method of adjusting their bedroom windows for the night. Call for suggestions of what to do on rainy or snowy nights. (Use of screens and ventilators for protection from storms.)

III. Food

EVIDENCES OF PUPIL GROWTH

1. Enjoys eating slowly and eating in clean tidy surroundings.
2. Knows that clean wholesome food helps to keep children well and to make them strong.
3. Knows that children should eat only at regular times.

* Before working on any unit for this year, the teacher should review the material under the same topic given in preceding grades. Some outcomes will require additional emphasis. In such a case, a new approach should be used and activities introduced which appeal to the interest of the older group.

4. Knows that fruit, a warm cereal, buttered toast and a glass of milk make a wholesome breakfast.
5. Likes breads made from whole grain cereals.
6. Eats whole grain cereals frequently.
7. Drinks water, milk and fresh fruit juices instead of tea, coffee, and "soft drinks" which are artificially flavored or colored.
8. Prefers to drink only wholesome drinks.
9. Knows ripe fruits are good for children but that cider and wine made from them are harmful when fermented.
10. Knows drinking plenty of water; eating fruit, whole grain cereals and vegetables; and playing actively out of doors help to regulate the bowels.

SUGGESTED ACTIVITIES AND PROCEDURES

Correlate with the study of the Pilgrims in history the preparation of cracked cereals as corn or wheat. Cook some of this cracked wheat at school if possible, or secure the assistance of some mother who will cook it at home. Demonstrate a real breakfast and have different pupils show how they would sit at the table and eat or drink the food served. If this is not possible, children cut out pictures of foods, mount them so they will stand up, and with the help of these demonstrate a good breakfast. Whenever refreshments are served at school, the teacher should use her influence to secure only such foods as those that are wholesome. In the discussion on refreshing drinks, the emphasis should be on the positive side in this grade. (See unit on Stimulants and Narcotics, page 49.) For No. 10 a little booklet might be made illustrating the different factors that aid in elimination.

IV. Rest and Sleep

EVIDENCES OF PUPIL GROWTH

1. Rests after playing hard.
2. Takes a nap or lies down quietly for a while when it is necessary to be up late at night.
3. Removes day clothing at night and wears proper night clothing.
4. Knows what to do with bed clothing upon rising in the morning.
5. Keeps the nose from under the bed coverings.

SUGGESTED ACTIVITIES AND PROCEDURES

No. 1 should be practiced after vigorous play at school, especially in warm weather. Whenever the teacher knows of an evening affair that will likely cause a later bed hour, the need of No. 2 should be discussed. Pupils report a list of practices related to this unit which they observe. Help pupils to discover new practices from these reports and encourage them to determine whether or not they should include other practices. Help pupils to appreciate the efforts of their

parents in providing home training. Ask one of the girls to bring doll bed and doll to school, that Nos. 3-5 may be demonstrated.

V. Play and Work

EVIDENCES OF PUPIL GROWTH

1. Knows the rules of the game in which he takes part.
2. Is able to count score for games like hopscotch.
3. Uses moderation in jumping and running.
4. Learns dog-paddle mode of swimming by end of grade three if opportunity permits.
5. Helps playmates, parents, and teachers in their tasks whenever suitable.

SUGGESTED ACTIVITIES AND PROCEDURES

Help the pupils to realize that in this grade they are learning games that require more ability than in the lower grades, for example, remembering more rules in one game and keeping scores. Help children to change activities; to realize that they should not continue jumping or running until they are tired. Discuss with pupils the tasks that they have as regular duties at home. Help them to enjoy working at some task regularly at school. For games and other activities for this grade, see pages 153-154.

VI. Posture

EVIDENCES OF PUPIL GROWTH

1. Keeps good posture while writing and working.
2. Walks without scuffing one's feet.

SUGGESTED ACTIVITIES AND PROCEDURES

The teacher should help each pupil to get the feeling of good posture as he works. Seats should be adjusted to the size of each pupil. Where seats are not adjustable, foot rests should be provided for pupils who cannot touch the floor with the feet.

VII. Prevention, Detection, and Correction of Health Handicaps

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Knows the physician, nurse, and dentist are friends of children.
2. Is interested in his health examination.
3. Cooperates with parents and physician when treatment for any handicap is necessary.
4. Has a friendly attitude toward the hospital.

SUGGESTED ACTIVITIES AND PROCEDURES

To help pupils to see the relation of Nos. 1-4 to their experiences, a health play, "Jack and His New Friends" may be written by the class. Jack, a new boy in school, had never experienced a health examination. The play shows him meeting the physician and the nurse. The examination reveals a cavity in a six-year molar. When the report is discussed at home, the father decides to have Jack go to the dentist. He goes alone and has an interesting time. The dentist gives him some suggestions as to the care of his teeth. (See page 44). The last scene is in the hospital where Jack is calling on his mother who is almost well enough to go home. She explains to him what good care she has had at the hospital, and calls his attention to the cleanliness of her room. Jack shows his mother the little cavity that has been filled. She is pleased to learn that he did not have to wait until she could go with him to the dentist.

CARE OF THE EYES

EVIDENCES OF PUPIL GROWTH

1. Works with a good light falling over the left shoulder so that a shadow will not fall on the material being used.
2. Reads very little by artificial light.
3. Avoids books printed indistinctly, in small type, or on glossy paper.

SUGGESTED ACTIVITIES AND PROCEDURES

Although the turning on of artificial lights may often be easier, making adjustments for receiving all the natural light available is usually more satisfactory. Help pupils to make the necessary changes in seating, in placing their materials or in adjusting shades that the best light may be secured, and that the eyes may be protected from glaring lights. In selecting books from their own library, pupils should consider print and paper as well as content.

CARE OF THE FEET

EVIDENCES OF PUPIL GROWTH

1. Washes feet several times a week; daily, if possible.
2. Knows that hose should be clean and long enough in the feet.
3. Knows that shoes should be comfortable, and should have low heels, broad toes, and straight inside line.

SUGGESTED ACTIVITIES AND PROCEDURES

In the discussions on the care of the feet, review the points brought out in grades one and two. Demonstrate the effect of wearing hose that are too short in the feet. Secure good examples of school shoes for children of their age and size. Show the good points of shoes. Make posters showing (1) clean feet with well trimmed nails, (2) well-fitting hose, and (3) suitable school shoes.

CARE OF THE NOSE, THROAT, AND EARS

EVIDENCES OF PUPIL GROWTH

1. Avoids blowing the nose in a way or a place that will annoy other people.
2. Is considerate of children who cannot hear or speak well.
3. Refrains from striking another person's ears, or shouting into them.

SUGGESTED ACTIVITIES AND PROCEDURES

Nos. 1 and 2 are usually taken care of most effectively when discussed individually with the offender. The teacher needs tact in handling these cases. For No. 3 explain the danger there is in these practices and then help pupils to refrain from them on the playground.

CARE OF THE SKIN, HAIR, AND NAILS

EVIDENCES OF PUPIL GROWTH

1. Can take responsibility for own bath.
2. Takes proper care of soap, wash cloth, and towel.
3. Is learning to take care of his hair and keeps his own brush and comb clean.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss with children how old they were when they began to take responsibility for their own baths; what they learned first; what mother needed to help them with most. Encourage pupils to illustrate on blackboard how they take care of the soap, wash cloth, towels, clothing (soiled and clean). Demonstrate the care that should be given brush and comb whenever used and then explain how they are washed regularly in order to be kept clean.

CARE OF THE TEETH AND MOUTH

EVIDENCES OF PUPIL GROWTH

1. Knows that the dentist should be visited twice a year for any needed attention.
2. Desires to have his teeth given proper dental care.
3. Knows that chewing coarse foods, as hard breads or celery, helps to keep the teeth in good condition.
4. Eats some coarse food every day.
5. Refrains from biting hard substances that might injure the teeth.
6. Gives toothbrush proper care.

SUGGESTED ACTIVITIES AND PROCEDURES

The discussions under this topic will furnish the foundation for what the dentist tells Jack in the play suggested on page 43. If ma-

terials are available, little toothbrush holders may be made by pupils. Children discover where they might hang the holders in the classroom in order to get the most sunshine.

VIII. Prevention of Communicable Disease and Other Illnesses

EVIDENCES OF PUPIL GROWTH

1. Knows that some sickness is communicable and may be avoided by staying away from people with communicable disease.
2. Cooperates with the teacher in prevention of common "colds" in school.
3. Refrains from using common drinking cup, towel, wash cloth, comb and brush.
4. Refrains from wetting finger to turn leaves in a book; is able to turn them properly.

SUGGESTED ACTIVITIES AND PROCEDURES

The following plan may help pupils to appreciate No. 1. One child is called the health officer. He prepares cards marked "Cold." The teacher will be the first to be "quarantined" that no child may be disturbed by being the first example. The card is placed on the teacher's desk. This is to remind each one not to come near the teacher (who is supposed to have a cold) and to help the teacher to remember to cover each cough and sneeze, also, to stand at least five feet from pupils that they may not be within range of the bacteria from the teacher's mouth when she is talking. The pupils are to think of this as one of the safety measures taken in their school. When they have a "cold" they are to report to the health officer who will place a quarantine card on their desks. This opens the way for discussing the purpose of quarantine cards found on homes.* In discussing No. 3, help children to understand why one should have the individual articles named. Ask for illustrations showing where they keep their combs and other articles discussed. Demonstrate the correct method of turning leaves suggested in No. 4. Help pupils to develop skill in this practice.

IX. Clothing

A EVIDENCES OF PUPIL GROWTH

1. Chooses proper clothing for out of doors.
2. Knows proper night clothing.
3. Airs clothing and shoes at night.
4. Keeps wraps and clothing in proper places.
5. Knows that hose should be clean and long enough in the feet.
6. Knows tight garters are harmful and wears only those that are comfortably loose.

* The teacher should be familiar with the rules and regulations relative to the control of communicable disease and help the pupils to observe them. Copies of these may be secured from the Commonwealth of Pennsylvania, Department of Health, Harrisburg.

SUGGESTED ACTIVITIES AND PROCEDURES

No. 1 should be practiced at school. Posters may be made illustrating night clothing and how the day clothing is given care at night. Discuss and demonstrate No. 4. Children explain where they place their clothing at home. Nos. 5-6 should be given with the lesson under Care of Feet, page 43.

X. Safety Education

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Tries to remain calm in case of emergency that one may be of service.
2. Knows that the majority of accidents are caused by carelessness.

SUGGESTED ACTIVITIES AND PROCEDURES

Teacher commend pupils who remain calm when accidents or other disturbing situations occur in the classroom or on the playground. Emphasize the fact that excitable conduct under such conditions causes more trouble. Whenever incidents of this type are described in a story in their readers, time should be taken for expression of appreciation on the part of pupils of such behavior. No. 2 is learned by pupils through answering the question, "Could this accident have been prevented?" After a discussion of this topic, help the children to see the value of carefulness in their activities at school. See next section on Safety.

SAFETY EDUCATION RELATIVE TO TRAFFIC AND THE USE OF STREETS AND HIGHWAYS

EVIDENCES OF PUPIL GROWTH

1. Avoids traffic accidents at school, for example, exercises care in use of stairways and corridors, and in opening and closing doors; avoids pushing and crowding others; keeps feet under desk so that there may be no danger of anyone stumbling over them.
2. Refrains from "hitching" rides.
3. Refrains from throwing fruit skins on walk.

SUGGESTED ACTIVITIES AND PROCEDURES

Since in their discussions on safety this year, the class has emphasized carefulness (see above), the teacher should help them to carry out their decisions related to situations in traffic at school as mentioned in No. 1. Give no time to No. 2 if pupils are taking no such risks. Ask pupils to make posters illustrating what they would do with a banana peel found on the walk. In order to get different drawings the teacher might suggest to one group to illustrate finding a banana peel during a walk in the park, to another group that their poster tell of a school incident, and to others that the banana peel is lying on a certain street designated by the class.

SAFETY EDUCATION RELATIVE TO THE PREVENTION OF FIRE

EVIDENCES OF PUPIL GROWTH

1. Handles matches and flammable materials with care.
2. Knows how to use safety matches.
3. Disposes of used matches carefully.
4. Knows that matches should be kept out of the reach of small children.
5. Picks up all spilled matches from floor.
6. Knows why loose matches should not be carried in pockets.
7. Strikes match away from himself.
8. Keeps matches in covered non-flammable containers away from the heat of stoves, stove pipes and secure from rats and mice.
9. Knows the danger of celluloid articles such as combs, toys and the like when too near the fire.
10. Uses caution around open fires and stoves.

SUGGESTED ACTIVITIES AND PROCEDURES

Ask the class to think of all helpful ways in which matches are used, then call for any harmful results due to matches. Discuss how the latter may be avoided. Help the pupils to bring in all the points included in Nos. 1-8. The teacher may direct these discussions so as to help pupils to solve problems indicated in Nos. 9 and 10.

PLAY AND OTHER ACTIVITIES

EVIDENCES OF PUPIL GROWTH

1. Is careful during indoor play activities.
2. Tries to avoid slipping on gymnasium or playroom floor when wearing street shoes.
3. Tries to avoid hitting hands with force against wall or floor when playing running games.
4. Knows poisonous plants in the community as poison ivy and poison sumach.
5. Knows practices which help to make winter sports safe: only soft snow balls; safe places for coasting and skating.
6. Refrains from hitching sleds to passing vehicles.
7. Knows safe ways of celebrating Hallowe'en, Christmas, birthdays, and Fourth of July.
8. Refrains from petting strange dogs and other animals.
9. Knows danger in touching loose wires and moving machinery.
10. Knows danger of flying kite near wires.
11. When making a kite, uses only string for flying.
12. Avoids using an unsafe or broken ladder.

13. Avoids playing in and about buildings under construction.
14. Avoids stepping over a rope which is under tension.
15. Refrains from riding on the handle bars of a comrade's bicycle.
16. Knows the danger in playing with dynamite caps.
17. Makes certain that all materials used in building a hut are sound.

SUGGESTED ACTIVITIES AND PROCEDURES

In helping to prevent accidents in play continue emphasis on carefulness. Discussions should capitalize situations and opportunities that lend themselves to a consideration of the safety practices listed. For example, those practices centering around Hallowe'en should take place in October. Since certain knowledges are necessary as guides in choosing safe practices, it is well to organize and to give a test to learn whether children have understood clearly the points to be remembered. An example of such a test follows:

Choose the right word or phrase—

Poison ivy has——leaflets.

1. Three
2. Five

When snow balling we should make only——balls.

1. Soft
2. Round

There is——danger of slipping on the gymnasium floor when wearing street shoes.

1. More
2. Less

Use——when making a kite.

1. Wire
2. String

Dynamite caps will explode——.

1. Slowly
2. Easily

PREVENTION OF ACCIDENTS IN THE HOME

EVIDENCES OF PUPIL GROWTH

1. Is careful in opening and closing doors.
2. Refrains from climbing in unsafe places.
3. Keeps a tight hold when climbing on apparatus.

SUGGESTED ACTIVITIES AND PROCEDURES

Call for demonstrations of No. 1. Discuss the use of different types of doors which pupils open and close, and how to manage them when there is a strong wind. Discuss points that it is important to remember when climbing stairways (especially strange ones), fences, ladders, and apparatus. Help children to know how to do each in safety.

XI. First Aid

EVIDENCES OF PUPIL GROWTH

1. Is able to give simple first aid treatment for minor cuts and injuries.

SUGGESTED ACTIVITIES AND PROCEDURES

Occasionally permit a child to demonstrate how to care for a minor injury, as a slight cut.

XII. Stimulants and Narcotics

EVIDENCES OF PUPIL GROWTH

1. Drinks water, milk and fresh fruit juices instead of tea, coffee and "soft drinks" which are artificially flavored or colored.
2. Knows that the body requires at least four glasses of water daily to keep it in good condition.
3. Knows that fresh fruit juices are more wholesome than those which are artificially colored or flavored.
4. Prefers to drink only wholesome drinks.
5. Knows that ripe fruits are good for children but that cider and wine made from them are harmful when fermented.

SUGGESTED ACTIVITIES AND PROCEDURES

One of the most interesting methods in working out this unit is making a movie, "Refreshing Drinks for All." Collect colorful pictures or have pupils draw scenes of beautiful spots where birds and animals are drinking water. The next series might be pictures of animals, babies, children, and grown-ups drinking milk. The last series might be attractive pictures of fruits to be made into refreshing drinks. In all of this, the emphasis is to be placed on the value of clean wholesome drinks. As the different scenes appear, let the children take turns in giving an explanation of the pictures shown.

XIII. Wholesome Personality

EVIDENCES OF PUPIL GROWTH

1. Remains good humored under trying circumstances.
2. Settles difficulties without appealing to the teacher.
3. Refrains from taking what belongs to other children.
4. Gives back lost articles to owner, if possible.
5. Controls himself in anger, fear, or other strong emotions.
6. Refrains from quarreling.
7. Forgets grudges quickly.

SUGGESTED ACTIVITIES AND PROCEDURES

As the teacher discovers a pupil who needs help in any one of these character traits, she should try to find opportunities for that child to practice experiences which will help him to develop the desired behavior. She quietly commends him on evidences of growth, helps him to see causes of failure, and encourages him to persist until he succeeds.

GRADE FOUR*

I. Cleanliness

EVIDENCES OF PUPIL GROWTH

1. Takes responsibility of continuing practices in cleanliness taught at school or at home.
2. Increasingly takes more responsibility for cleanliness of some conditions at home; as care of his own belongings, and some tasks which help to keep the home neat.
3. Helps to destroy breeding places of mosquitoes by preventing the accumulation of water in cans or other containers.
4. Helps to prevent breeding of flies by keeping garbage containers covered.

SUGGESTED ACTIVITIES AND PROCEDURES

The class discusses: What habits of cleanliness are practiced at school without the pupils being reminded by the teacher? Children make a list of these and then decide upon some plan which will help them to remember any necessary practices which they forget. The suggestions for No. 2 should be adapted to the home conditions of the pupils. The best time for discussion of Nos. 2-4 is usually when mothers are working at spring house-cleaning, but children should understand that it is necessary to give attention to cleanliness all through the year. Get a report from each one to learn what fourth graders do in helping to keep homes neat. Teacher appoint a committee to make a survey of the room. After the class hears their report, plans are made to improve conditions.

II. Fresh Air and Sunshine

EVIDENCES OF PUPIL GROWTH

1. Likes to work and study in well ventilated rooms.
2. Knows that the temperature of school and living rooms should be about 68°F to 70°F.
3. Helps with opening and closing windows to keep the home or schoolroom well ventilated when window ventilation is used.
4. When a mechanical ventilating system is used, helps to maintain conditions necessary for effective ventilation.

SUGGESTED ACTIVITIES AND PROCEDURES

Make a study of the thermometer in the classroom. If it is small and stationary secure a larger one which may be examined by the

* Before working on any unit for this year, the teacher should review the material under the same topic given in preceding grades. Some outcomes will require additional emphasis. In such a case, a new approach should be used and activities introduced which appeal to the interest of the older group.

pupils. Pupils make drawings of one and work out original designs for the mounting. At the side of the drawing have spaces for recording the temperature. Appoint a pupil to keep a record of the temperature in the classroom for one week, then give other pupils the same experience. Make a chart of the readings. If any building project is in process in the room, suggest that some pupils make ventilators for windows. If advisable take the class to the basement to see the ducts of the ventilating system that they may visualize the passage of the outside air to the classroom. In schools having a mechanical ventilating system, it is the responsibility of the janitor and principal to see that the temperature is between 68 and 70 degrees.

III. Food

EVIDENCES OF PUPIL GROWTH

1. Knows that milk and vegetables are important foods for building bones and teeth because they are rich in mineral salts.
2. Eats foods that help to build sound teeth, as milk, vegetables, oranges, and other fruits.
3. Takes a quart of milk a day when provided, and advisable.
4. Knows that through chewing of hard foods such as zwieback helps to make sound teeth.
5. Eats daily hard breads, or other food requiring vigorous chewing.
6. Knows that candy eaten between meals spoils the appetite for body-building foods served at mealtime.
7. Knows that children who eat much candy usually have poor teeth.
8. Refrains from eating candy frequently, and then usually at end of meals.
9. Knows sugar gives power to play and work but nothing to make the body grow.
10. Knows the results of experiments in which some animals had milk and others had coffee or candy with their food.

SUGGESTED ACTIVITIES

In this grade foods are studied in their relation to building sound teeth.

BUILDING SOUND TEETH

Purpose. To interest children in eating foods that help to build sound teeth.

PROCEDURE

Assignment. Ask pupils to bring little pocket mirrors to school.

Approach. Explain the importance of the six-year molars and where to find them. Then ask each child to find his own and report on them as follows:

The Six-Year or First Permanent Molars

1. How many should there be?
2. How many are found?
3. How many have been extracted?
4. How many have visible cavities?
5. How many look clean?

Assignment. Propose writing a story of each one's own six-year or first permanent molars.

Title My First Permanent Molars

Chapter 1. How I found them.

Chapter 2. The report made. (Answers to questions above.)

Chapter 3. How I keep my teeth clean.

Chapter 4. What I am doing to build sound teeth. (This will include summary of discussions on Nos. 1-10.)

Illustrations

Chapter 1. Outline of a molar.

Chapter 2. Outline of teeth in both jaws, with first permanent molars marked as each found his own, for example, a black dot to indicate a cavity.

Chapter 3. Drawing of the type of toothbrush used and the place where it is kept.

Chapter 4. Pictures of foods that the child is eating and drinking which he has learned help to build teeth.

Vocabulary. List of new words which are used in writing the story.

Report. Blank space to record visits to dentist and conditions found later.

REFERENCES

NATIONAL DAIRY COUNCIL. Milk Made the Difference (folder). National Dairy Council, Chicago, Illinois. \$03.

TURNER, C. E. and PINCKNEY, JEANIE M. In Training for Health. D. C. Heath and Company, New York. 1929. Chapter four.

IV. Rest and Sleep

EVIDENCES OF PUPIL GROWTH

1. Spends eleven hours in bed at rest or asleep.
2. Opens the windows before going to bed.
3. Knows how to adjust the window in accordance with the weather.
4. Rises promptly in the morning.
5. Usually prefers regular hours of sleep to staying up late for such reasons as going to movies, listening to radio programs and the like.

SUGGESTED ACTIVITIES AND PROCEDURES

Class discuss: How many times does a boy need to be called in the morning? Bring out some reasons why it is hard for some to waken easily in the morning. Lead discussion to making suggestions for helping mothers whose children are sleepy and cross in the morning. Propose putting these suggestions into a play. The evening meal, the type of play, the quieter play before retiring, the preparation for bed, the conditions in sleeping rooms, the happy thoughts before going to sleep, should be included. The title might be " 'Good Morning' at Grandfather's Farm."

V. Play and Work

EVIDENCES OF PUPIL GROWTH

1. Knows how to sit, stand, walk or run correctly.
2. Has good posture when standing, sitting, or walking.
3. Is able to perform the feats suitable for his age, in running, jumping, climbing, throwing, and batting balls, and is ready to compete with other children.
4. Has courage to learn to do new feats.
5. Is a cheerful loser and a generous winner.
6. Appreciates the right of others when playing games.
7. Is learning not to shirk disagreeable duties.
8. Takes satisfaction in being able to do some tasks well.

SUGGESTED ACTIVITIES AND PROCEDURES

There may be content in the pupil's health text on the need of play and other activities which may help the child to appreciate why play periods are provided in the school program. Nothing will secure the desired results like giving the child an opportunity to play and develop certain skills within his ability. To secure Nos. 7 and 8, the pupil must be given some tasks in which he is able to meet success. The child who is facing failure each day should be given some activity in which he can gain some satisfaction for at least a part of the day.

For games and other activities for this grade see pages 154-156.

VI. Posture

EVIDENCES OF PUPIL GROWTH

1. Knows how to sit, stand, walk, or run correctly.
2. Has good posture when standing, sitting, or walking.
3. Gives attention to light when reading or working on fine materials.
4. Admires good posture in others.

SUGGESTED ACTIVITIES AND PROCEDURES

Help pupils to see that standing tall improves the appearance. Secure good pictures of happy children playing or working and stimulate pupils to note the posture. Stimulate the class to see that boys and girls who are well and strong, who eat wholesome food and sleep long enough to get rested, usually have good posture unless they form careless habits in school. Pupils demonstrate No. 3.

VII. Prevention, Detection, and Correction of Health Handicaps

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Has confidence in the ability of the physician, nurse, and dentist.
2. Has an increasing interest in his health examination.
3. Cooperates with parents and physician when treatment for any handicap is necessary.
4. Understands that for some illnesses better care can be given at the hospital than in the home.

SUGGESTED ACTIVITIES AND PROCEDURES

The health examination, the correction of any health handicaps of members in the class, and hospital service of any friend or member of the class or family provide experiences on which to base discussions that will contribute to Nos. 1-4. The teacher, of course, will use tact by bringing out the positive results of these experiences.

CARE OF THE EYES

EVIDENCES OF PUPIL GROWTH

1. Gives attention to light when reading or working on fine material.
2. Knows that when the eyes ache, or when one has trouble in seeing things distinctly the eyes should be examined.
3. Knows that when tears will not wash out foreign bodies from the eye, the particles should be removed carefully by a skilled person.
4. Avoids sitting too close to the screen when attending the movies.

SUGGESTED ACTIVITIES AND PROCEDURES

Raise the following questions for discussion: What have we learned about the care of the eyes in grades one to three? What care have we given them in the classroom? Have we had any cases of "pink eye"? If so, what was done to protect the children who did not have it? Have any members of the class been fitted with glasses? If so, what practices have they in the use and care of the glasses? What additional practices related to the care of the eyes can be expected of fourth graders? See Nos. 1-4.

CARE OF THE FEET

EVIDENCES OF PUPIL GROWTH

1. Keeps toe nails short and cut straight across.
2. Takes care of any blister, sore or cut on the foot.
3. Knows that one should walk with toes straight ahead, and weight well forward on the balls of the feet.

SUGGESTED ACTIVITIES AND PROCEDURES

Demonstrate each of Nos. 1-3 when some incident provides a situation that is timely. Test children on points learned in Grade Three that were to be remembered when selecting new hose and shoes.

CARE OF THE NOSE, THROAT, AND EARS

EVIDENCES OF PUPIL GROWTH

1. Knows that the treatment for a "cold" or sore throat should be given in the very beginning.
2. Tells parents, nurse, or physician of any pain or discharging of the ear.
3. Knows that anyone with discharging ears should not go in swimming because of the danger to others as well as to himself.
4. Knows that "colds" and sore throats are communicable, therefore, he should stay away from other persons as much as possible when suffering with either.

SUGGESTED ACTIVITIES AND PROCEDURES

Let the emphasis in this grade be on good hearing. Discuss: What pleasures would we miss if we could not hear? What work is not safe for a hard-of-hearing person to do? What practices have we learned that protect the ears? From a simple outline on the board show that a little tube leads from the throat to the inner ear. By this approach help children to become interested in the prevention of "colds" and then lead to the discussions on Nos. 1-4.

CARE OF THE SKIN, HAIR, AND NAILS

EVIDENCES OF PUPIL GROWTH

1. Takes a cleansing bath with warm water and soap more than once a week.
2. Knows the best way to clean hands.
3. Knows when one need not to be ashamed of soiled hands.
4. Uses his own manicure articles effectively.
5. Knows how to prevent or care for hangnails.
6. Knows how to prevent or care for chapped hands.
7. Knows why hands should be washed thoroughly before handling food.

8. Knows that hands should be clean when giving first aid.
9. Knows how to care for hands when frosted.
10. Knows gloves and mittens should be given proper care to protect hands, for example, clean gloves, dry mittens.
11. Refrains from keeping the hands on his face.
12. Refrains as far as possible from contact with persons who have skin diseases, or with their belongings.

SUGGESTED ACTIVITIES AND PROCEDURES

Work out teaching unit on the care of the hands. Include demonstrations or dramatizations for Nos. 2-12.

CARE OF THE TEETH AND MOUTH

EVIDENCES OF PUPIL GROWTH

1. Eats some of the foods which help build sound teeth.
2. Knows why one should not kiss a person on the mouth.
3. Knows that putting foreign articles in the mouth may transmit disease, cause accidents, make a poor appearance, and destroy articles.
4. Knows that using mouth pieces of brass musical instruments which have been used by another may cause blistered lips.
5. Knows that the mouth piece of a musical instrument should be sterilized by boiling in water or washing in antiseptic solution whenever used by another person, and also, occasionally when only one person is using it.

SUGGESTED ACTIVITIES AND PROCEDURES

Correlate No. 1 with unit on Food, page 51. Discuss No. 2 with pupils. Secure picture of someone kissing a baby on the cheek or away from the mouth. Children examine their penholders and pencils to note any indications of tooth marks. Discussions on Nos. 4 and 5 may be omitted if no child is playing on instrument with mouthpiece.

VIII. Prevention of Communicable Disease and Other Illnesses

EVIDENCES OF PUPIL GROWTH

1. Appreciates the value of preventive measures when a case of a communicable disease is in the community and is not frightened at its existence.
2. Observes quarantine.
3. Is willing to stay away from crowded places during epidemics.
4. Refrains from drinking water from unknown wells, springs, or streams.
5. Provides drinking water for hike unless he knows water on route is safe.

6. When picnicking or camping is careful to keep the grounds in sanitary condition.

SUGGESTED ACTIVITIES AND PROCEDURES

When there is a case quarantined in the community discuss with the class (1) the purpose of quarantining, (2) the meaning of epidemics, and (3) what fourth graders can do to help prevent epidemics. Discussions on Nos. 4-6 should be at that season when pupils are taking hikes, and going on picnics.

IX. Clothing

EVIDENCES OF PUPIL GROWTH

1. Changes underclothing and hose at least once a week, more often if possible.
2. Knows how to wash his own clothing satisfactorily when necessary.
3. Brushes and polishes shoes and keeps them clean.

SUGGESTED ACTIVITIES AND PROCEDURES

The amount of time given to this unit will depend upon the home conditions of pupils. Discuss with class why No. 1 is necessary and how pupils might wash their own clothing if no one at home were able to take care of them. A demonstration of No. 3 in some schools would be advisable.

X. Safety Education

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Appreciates a difference between foolhardiness and bravery.
2. Avoids foolish unnecessary risks that he may be free to do things that are worthwhile.

SUGGESTED ACTIVITIES AND PROCEDURES

The best opportunities for lessons on Nos. 1 and 2 will be on the playground, and on school journeys or hikes. The teacher keeping these objectives in mind will find incidents in reading and other subjects which will provide illustrations for discussions on real bravery. Pupils bring in clippings of accidents and rescues; determine whether the person was foolhardy or brave.

SAFETY EDUCATION RELATIVE TO TRAFFIC AND THE USE OF STREETS AND HIGHWAYS

EVIDENCES OF PUPIL GROWTH

1. Observes all danger signs and signals
2. Is careful when riding a bicycle.
3. Refrains from riding on handle bars of a bicycle.

4. Avoids throwing sticks or pieces of wire over electric light wires or flying kites near such wires.
5. Understands the danger of broken electrical wires and keeps away from such sagging wires after a sleet or wind storm, and knows that a policeman, a fireman, or an electric light company should be called at once.
6. Knows that a person who has been shocked and is in contact with live wires should not be touched.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss: What practices related to traffic and the use of streets or highways that have been taught in grades one to three are observed by the majority of the fourth grade? What danger signs and signals are in the community or on routes traveled? What signs would pupils suggest on routes over which they hike? When kite-flying time arrives place on bulletin board, Safe Places for Kite Flying. Under this heading record places proposed by pupils, after each site has been approved by group. Call for dramatizations of what to do in situations included in Nos. 5 and 6.

PREVENTION OF FIRE

EVIDENCES OF PUPIL GROWTH

1. Tries to prevent accidents from fire.
2. Knows that carefulness helps to prevent fires.
3. Knows the causes of many fires: matches, lighted cigars and cigarettes, bonfires, ashes in flammable containers, electric irons, candles, starting fire with kerosene, explosion of gasoline and "cleaners," carelessness about gas and coal stoves, overheated stoves and furnaces, rubbish, oily rags and mops, flammable Christmas decorations and Fourth of July fireworks, fires in the woods—carelessness of campers and others.
4. Knows what to do in case of fire: tell older person, call telephone operator or fire department, or use fire alarm box.
5. Knows what to do if caught in burning building: think quickly where nearest safe exit is; crawl along floor, to avoid breathing smoke, toward exit; call for help.

SUGGESTED ACTIVITIES AND PROCEDURES

Ask each pupil to learn the cause of some fire of which he has heard. In class list the causes and have pupils discuss how each might have been prevented. Plan how to send in an alarm of fire from the school; from home. Make a trip to the fire house, if near. Write a story telling, "What Happens in the Firehouse When the Alarm Sounds." Dramatizations of Nos. 4 and 5 will help pupils to remember what to do in case of emergencies of this group. Explain that in case of a fire, an inside door if hot should not be opened but escape should be made through a window or an outside door. In burning buildings death is due more often to breathing superheated air than to burns.

PLAY AND OTHER ACTIVITIES

EVIDENCES OF PUPIL GROWTH

1. Keeps away from trees, poles, wire fences and barns during an electrical storm.
2. Refrains from teasing and throwing objects at animals.
3. Knows the danger in using slingshots and the like.
4. Avoids pointing weapon at anyone.
5. Knows games such as "Snap the Whip" are dangerous.
6. Refrains from crowding, pushing or tripping his playmates.
7. Knows how and where to snowball without danger.
8. Avoids skating on thin ice and in dangerous places.
9. Refrains from talking to anyone operating a power-driven machine.
10. Knows that a ladder is securely placed before climbing.
11. Knows how to brace oneself properly when lifting a load.
12. Refrains from lifting excessive loads.
13. Knows the danger of dugouts caving in.
14. Knows that he should wait at least one hour after a meal before going in swimming. (Some physicians advise two hours.)
15. Uses caution when in, near, or on water.
16. Avoids playing on rafts and in canoes.
17. Knows that being able to swim may be a means of protecting self and others in the water.
18. Is reasonably careful when learning to swim or dive.
19. Knows the danger of leaving soap where others may slip on it, especially in shower rooms.
20. Refrains from running on sidewalk around swimming pool.
21. Refrains from swimming or playing alone in pool.
22. Avoids going in deep end of pool unless able to swim.
23. Calls "Help" while in the water only when actually in trouble.
24. Knows some of the measures taken at the zoo for protection of the people and the animals.

SUGGESTED ACTIVITIES AND PROCEDURES

Since there are so many situations in the pupil's activities that require safety practices it will be necessary to work out some plan whereby many may be included in one lesson. The question, "Why is each situation or practice dangerous?" can be raised. To stimulate

an interest in these practices each child may be asked to make an illustration of one of the situations included in this unit but put no caption on it. The drawings or posters will be collected and used in a test or game. The point will be to explain why the situation illustrated is dangerous or what practice related to it will protect one from danger. If pupils do not have any opportunity to use swimming pools, time need not be given in this grade to discussions relative to them.

PREVENTION OF ACCIDENTS IN THE HOME

EVIDENCES OF PUPIL GROWTH

1. Helps to keep rugs flat and in place that no one may trip on them.
2. Knows the danger of placing objects on window sills or propping windows open with objects.
3. Avoids using a rocking chair as a stepladder.
4. Helps to keep stairs and steps free from obstacles which might cause falls.
5. Refrains from leaving any food or liquids on the floor which might cause one to slip.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss falls that have occurred in homes and how they might have been prevented. Have pupils report later on what they find to do at home to help prevent falls.

XI. First Aid

EVIDENCES OF PUPIL GROWTH

1. Can detect the odor of gas escaping from gas fixtures or coal stoves.
2. Knows that windows and doors should be opened immediately when the odor of gas is evident, how to turn off gas or adjust the stove and that the condition should be reported to an older person.
3. Knows simple first aid treatment for hiccough, choking, nosebleed, abrasions, foreign substance in the eye, teeth knocked out, frost bite.
4. Knows how to call for physician in case of emergency when older person is not available.
5. Tries to keep calm in case of accident or injury—does not become frightened or excited.
6. Wishes to help the injured person.

SUGGESTED ACTIVITIES AND PROCEDURES

Dramatize or demonstrate situations included under Nos. 1-4. When actual situations occur for use of first aid, help pupils to practice Nos. 5 and 6.

XII. Stimulants and Narcotics

EVIDENCES OF PUPIL GROWTH

1. Chooses to drink water, milk, and fresh fruit juices instead of fermented drinks.
2. Uses no tobacco.
3. Knows that tobacco is harmful for growing boys and girls because it hinders growth.
4. Knows athletes do not use tobacco and alcoholic drinks when in training because they can play better without them.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss: Why do athletes not use tobacco and alcoholic drinks when in training? What good reasons can be given for growing boys and girls not to use them?

XIII. Wholesome Personality

EVIDENCES OF PUPIL GROWTH

1. Persists in his work, completing his tasks successfully, reasonably often.
2. Is developing orderly habits.
3. Is learning not to shirk disagreeable duties.
4. Is curious concerning the world about him, and seeks by experiment and observation to satisfy his curiosity.
5. Has friendly relations with his companions.
6. Is courteous and considerate of his companions, and is interested in their welfare.
7. Shares his pleasures and possessions with others.

SUGGESTED ACTIVITIES AND PROCEDURES

Among the best opportunities at school for growth in wholesome personality are those furnished when group projects are in progress. As pupils work together sharing each other's experiences, taking responsibility, searching for evidence, and persevering until the project is successfully completed, there will be opportunities for growth in all the characteristics given in Nos. 1-7.

GRADE FIVE*

I. Cleanliness

EVIDENCES OF PUPIL GROWTH

1. Increasingly takes more responsibility in keeping the appearance of the playgrounds, the streets, and the parks clean.
2. Shows some responsibility in protecting food and in selecting that which has not been exposed to dirt and flies.
3. Knows how to care for milk in the home.
4. Knows how to wash dishes in a sanitary way.
5. Helps to keep kitchen, bedroom, and bathroom sanitary.

SUGGESTED ACTIVITIES AND PROCEDURES

Class reproduce in the sandtable a park in the community. Pupils suggest improvements that may be made in the appearance of the park. What responsibility should each member of the class take in keeping the park and streets clean? Visit markets, bakeries, and other places where food is sold; pupils report methods observed for protecting food from dirt and flies. Work out project Clean Milk. Let this be a story of the care of milk from the cow to the table where it is served. Assign different groups to make suggestions for keeping sanitary one of the rooms mentioned in No. 5. When reports are made the class should evaluate the suggestions listed and correct or add to the reports given by the groups.

REFERENCE

AMERICAN CHILD HEALTH ASSOCIATION. Clean, Safe Milk from Producer to Consumer. American Child Health Association, 450 Seventh Avenue, New York City. \$10

II. Fresh Air and Sunshine

EVIDENCES OF PUPIL GROWTH

1. Plays outdoors if possible at least three hours daily.
2. Has a keen enjoyment of and desire for outdoor air.
3. Avoids over-crowded and poorly ventilated places when it is possible.
4. Knows that exposure to sunlight should be gradual and not enough to produce painful burn.
5. Knows that sunshine helps in bone formation, helps to make blood healthy and helps to overcome infections.

* Before working on any unit for this year, the teacher should review the material under the same topic given in preceding grades. Some outcomes will require additional emphasis. In such a case a new approach should be used and activities introduced which will appeal to the interest of the older group. The material for Grades Five and Six has been divided between the two grades, so that there will not be repetition that tends to make the work dissatisfying to the pupil. Where the same topic is repeated a different approach or emphasis will be found.

SUGGESTED ACTIVITIES AND PROCEDURES

Ask pupils to determine how many hours they usually spend outdoors each day. From material or texts available find good reasons for spending time outdoors. Discuss: What reasons for outdoor activities were found by the class? Why is it important to play in the sunshine? Is the time spent outdoors by each sufficient? What games or outdoor activities does each enjoy most? What care should be taken to avoid painful sunburn? Secure pictures illustrating outdoor activities, sites for hikes and camps, children who have benefited by summer camps and sunshine exposure. Explain to class that the vitamins in cod liver oil are so much like sunlight in the way that they help us that this oil is sometimes called "bottled sunshine." Pupils write list of good games and other activities that keep boys and girls in the fresh air and sunshine.

REFERENCE

PFAFFMANN, MARY and STERN, FRANCES. *Food and Your Body*. Boston: M. Barrows and Company. 1932. See a teaching unit Sunlight for Growth.

III. Food

EVIDENCES OF PUPIL GROWTH

1. Selects a nutritious noon lunch when opportunity is given.
2. Is able to help prepare a wholesome lunch.
3. Washes hands before handling food.
4. Knows that a good diet for children includes milk, fruit, vegetables, cereals, sugar, fat (from butter and cream) and eggs or a small amount of meat.
5. Knows that choices for a noon lunch should be influenced by what is served at the evening meal.
6. Knows that growing children are better without tea, coffee, and foods like hot breads, fried foods, rich pastries and highly seasoned foods.
7. Knows that fried foods are not easily digested.
8. Refrains from choosing fried foods in cafeteria.
9. Refrains from using iced drinks in excess.
10. Knows that vitamins are substances found in some foods which are necessary for the growth of children and for the health of both old and young.
11. Knows that vitamins are needed in the daily diet and that they are furnished by milk, fresh fruits and vegetables, especially green leafy vegetables and cod liver oil.
12. Enjoys food which is wholesome.
13. Knows hygienic manner of eating.
14. Knows how to weigh himself.

SUGGESTED ACTIVITIES AND PROCEDURES

Review what was learned in grade four on the need of minerals in the diet. In grade five emphasis is to be placed on the value of vitamins. Secure charts showing pictures of animals fed on diets containing vitamins and of other animals that had no vitamins in their food. Have pupils tell incidents of sailors suffering from scurvy who were cured later by eating fresh fruits. Let them find how polar expedition parties are provided with vitamins and what happened to many babies in Holland during the World War when most of the milk was made into products to be shipped to warring nations.

If pupils eat lunch at school let this experience serve as a basis for a teaching unit on A Wholesome School Lunch. In developing this unit all points in Nos. 1-13 should be included. If lunches are brought from home the type of container for carrying the lunch and methods of packing lunch should be discussed. Where no lunches at school are eaten, some experience may be gained in making choices by having a project on the School Cafeteria. This may be prepared by the class. Pictures of foods will be cut out and mounted so that they will stand. These will be arranged in groups as soup, vegetables, meats, breads, salads, drinks, and desserts. Lunches chosen by pupils should be checked to determine whether the lunch is well balanced and supplements other meals well or not. There should be a difference in choices where a light supper or a dinner is to follow at night.

REFERENCE

PFAFFMAN, MARY and STERN, FRANCES. Food and Your Body. Boston: M. Barrows and Company. 1932. See a teaching unit A Mystery Story.

IV. Rest and Sleep

EVIDENCES OF PUPIL GROWTH

1. Spends eleven and a half hours in bed, at rest or sleep with windows open, preferably alone.
2. Knows that plenty of sleep is necessary for health and growth.
3. Knows how to adjust windows, bed clothing, and night garments, in accordance with weather, to have hygienic sleeping conditions.
4. Relaxes and goes to sleep promptly upon retiring.
5. Knows why boys and girls need more sleep than their parents.
6. Knows how to use window board or ventilator in sleeping room, when necessary, to avoid drafts, rain or snow.

SUGGESTED ACTIVITIES AND PROCEDURES

To secure interest in this topic lead discussion to the need of sleep on the part of the boys and girls in order to feel their best and to the right conditions necessary for rest and sleep. Pupils build a model sleeping room. Assign responsibilities for building and furnishing to different groups. Make the project practicable so that some suggestions may be used by the pupils in their own rooms.

V. Play and Work

EVIDENCES OF PUPIL GROWTH

1. Participates in some of the following kinds of activities:
 - a. Athletics
 - (1) Track and field events adapted to his ability.
 - (2) Team games, for example, soccer, volley ball.
 - b. Dancing, for example, folk, gymnastic or natural.
 - c. Group games and relays, for example, three deep ; run sheep run ; pom pom pull away.
 - d. Natural gymnastics.
 - e. Hiking
 - f. Swimming
 - g. Skating
2. Is able to use tools which are necessary in certain big muscle activities: for example, hammer, saw, bicycle, skates and the like.
3. Plays vigorously out of doors at least three hours daily if possible.
4. Enjoys participation in games and sports with other children.
5. Knows that success in physical achievement is related to sleeping long hours with windows open ; eating right foods at regular hours; playing out of doors; being cheerful; controlling the temper; taking proper care of the feet, including wearing the right kind of shoes and hose.
6. Knows the value of outdoor play.
7. Prefers outdoor play when weather permits to indoor forms of recreation.

SUGGESTED ACTIVITIES AND PROCEDURES

The teaching unit on this topic may be worked out through the problem: What helps a boy or girl to win success in physical activities? Help each pupil to know the essentials for No. 5 and to see how he may improve in his skills and conduct in games. For games and other activities for this grade see pages 156-158.

VI. Posture

EVIDENCES OF PUPIL GROWTH

1. Desires to have good posture.
2. Admires good posture in art.
3. Knows that the points in good sitting posture are: hips well back in the chair or seat, feet flat on the floor, and back straight without exaggerated curve either at the waistline or shoulders.
4. Checks his sitting posture often by the points above.
5. Knows that the points in good standing posture are: weight forward on both feet, with toes pointing straight ahead ; chin in ; chest lifted ; abdomen flat ; back straight ; and arms hanging naturally at the sides.

6. Checks standing posture often by standing against the wall with heels a few inches from the wall, and with hips, back and head against the flat surface; then by placing the hand flat between the waistline and the wall and pressing body against it.
7. In carrying heavy books or other heavy articles, changes hands from time to time.

SUGGESTED ACTIVITIES AND PROCEDURES

Secure a few pictures that will help pupils to see the beauty of good posture. Take time to check on sitting and standing posture occasionally. Help each pupil to be able to check his own posture. Any pupil seeming to require special correction in posture should be referred to the principal or superintendent.

VII. Prevention, Detection, and Correction of Health Handicaps

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Has confidence in the ability of the physician, nurse, and dentist.
2. Has an increasing interest in his health examination.
3. Cooperates with parents, and physician when treatment for any handicaps is necessary.
4. Understands that for some illnesses better care can be given at the hospital than in the home.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss with class the health service furnished by the school and the advantage of the health examination. Have pupils report on health handicaps that have been corrected and the improvement which followed; also, explain how they may cooperate in getting corrections made, and how they may help to secure successful results.

CARE OF THE EYES

EVIDENCES OF PUPIL GROWTH

1. Knows the general structure of the eye and some provisions made for its protection.
2. Knows that the tiny muscles which focus the eye on near objects become tired and may be strained if they are not rested.
3. Knows reasons for health practices relative to the eye given in preceding grades.
4. Refrains from reading when lying down.
5. Avoids using eyes steadily for a long time on fine work that strains the eyes.
6. Knows how to arrange for good lighting condition while using eyes.

7. Knows the danger of exposing a baby's eyes to direct light or sunshine.
8. Knows how to avoid the common sources of eye infection.
9. Knows how to avoid spreading an eye infection.
10. Permits only *clean* towels and handkerchiefs to touch the eye.
11. Knows the danger in using public basins for washing the eyes.
12. Knows the importance of protecting the eyes from direct sun-light when suffering from measles or scarlet fever. (Wears dark glasses.)
13. Knows the importance of caring for the eyes and resting them during convalescence.
14. Refrains from going to the movies frequently.
15. Knows reading in moving cars strains the eyes.
16. Is careful of the eyes when playing games, or doing stunts.
17. Protects his eyes from sharp instruments and feels responsibility in protecting others when using them.
18. Knows that fire works are dangerous to the eyesight.
19. Knows some home safety practices which help to protect the eyesight.
20. Knows that with injuries to the eyes it is safer to see a physician as soon as possible.
21. Knows when glasses are to be worn that they should be fitted by an ophthalmologist, the frames kept adjusted properly, the lenses kept clean, and the glasses worn as prescribed.

SUGGESTED ACTIVITIES

Pupils in this grade should have a general understanding of the structure of the eye that they may appreciate its being perhaps the most intricately and delicately constructed organ in the body. This does not call for their being able to name all parts of the eye. A teaching unit similar to the following may be of use in helping to secure the interest in the outcomes related to the eye.

THE CARE OF THE EYE

Purpose. To help pupils to give eyes proper care.

PROCEDURE

Assignment. Announce to group that you will show them in their next health class the most wonderful eyes in the world. Ask them to find anything in their texts on the eyes that they may be ready to enter into discussions that will be raised.

Approach. The teacher fits her pocket mirror into an attractive box. Each pupil is permitted to look into the box and see the most wonder-

ful eyes in the world. When they see the reflection of their own eyes they are told to be quiet until all have looked in the box. The pupils then discuss why they are the most wonderful. The teacher asks them to think for a few minutes what they would choose to see if they would be able to have only one more day of good eyesight. After this question has been discussed, lead pupils to choose to study about the eyes.

Problem 1. How is the eye protected naturally?

- a. Look at each other's eyes to learn how they are protected by the eyebrows, eyelids, eyelashes, tears.
- b. Feel bony projection that surrounds the eye.
- c. Examine illustrations to learn how delicate an organ the eye is (not to learn all the intricate parts).

Problem 2. How may we protect our eyes?

At school? At home? In play? At work? When traveling?

Examine texts and available material on the eye.

Include all points under Numbers 2-20.

Problem 3. How may one know that one's vision is not defective?

Explain simple tests that are used. Pupils test reading with each eye alone, words written on blackboard when 20 feet from the board. Help pupils to understand that an ophthalmologist should be consulted when there is any doubt about the vision.

Problem 4. When one's vision is found to be defective what should be done?

- a. Visit a competent ophthalmologist.
- b. Wear only glasses prescribed by an ophthalmologist if it becomes necessary to correct a defect in vision.
- c. Wear glasses as prescribed.
- d. Give glasses proper care.

Have pupils who wear glasses demonstrate how proper care should be given.

REFERENCES

BETTER VISION INSTITUTE, 205 East 42nd Street, New York. (Charts)
COMMITTEE FOR THE PREVENTION OF BLINDNESS, 130 East 22nd Street, New York. (Pamphlets)

CARE OF THE FEET

EVIDENCES OF PUPIL GROWTH

1. Knows the essentials of a properly fitting shoe: length (space beyond big toe), width (room for toes to move with ease), shape (straight inner line from toe to heel), heels (low and broad).
2. Examines shoes to learn whether or not they are in good repair, especially the heels.

3. Chooses to wear a hygienic shoe.
4. Changes hose several times a week.
5. Knows why one should not wear hose that are short in the feet.
6. Washes and mends own hose when necessary.
7. Refrains from wearing waterproof footwear except on appropriate occasions.
8. Knows danger of infection as "athlete's foot" to bare feet when stepping on exposed places.
9. Chooses soft places to practice jumping rather than hard pavements.

SUGGESTED ACTIVITIES AND PROCEDURES

To stimulate an interest in this teaching unit collect shoes of various types. Pupils study the form of the human foot by examining their own, by looking at models and illustrations. Discuss the advantages of different types of shoes worn by different people, for example, the Indian's moccasin. Call on pupils for demonstrations or discussions of Nos. 1-9.

CARE OF THE NOSE, THROAT, AND EARS

EVIDENCES OF PUPIL GROWTH

1. Continues practices suggested for preceding grades and gives special attention to any in which one is weak.

SUGGESTED ACTIVITIES AND PROCEDURES

Explain to grade five the plan of the course in health instruction. Discuss with them the list for grade one under Evidences of Growth, page 22. Question class as to whether they have brothers or sisters in this grade. Class determines the best answers to the following:

1. Are these practices too difficult for grade one?
2. Can you see any improvement in first graders that you know?
3. What might be done by grade five to help grade one improve in these practices?
4. What would you grade yourself on these first grade achievements?

Work out the same plan with the lists under the same topic for grades 2, 3, and 4. Class determines which practices are necessary for the fifth grade to give additional attention. Keep list and check occasionally to learn of any improvements made by class.

CARE OF THE SKIN, HAIR, AND NAILS

EVIDENCES OF PUPIL GROWTH

1. Brushes and combs the hair every morning and at other appropriate times.
2. Uses his own comb and brush and keeps them clean.

3. Knows that some diseases of the scalp may be carried by comb and brush.
4. Shampoos hair with warm water and soap often enough to keep the hair and scalp clean.
5. Dries the hair thoroughly after a shampoo.
6. Massages the scalp by brisk rubbing or brushing.
7. Keeps the hair trimmed or fastened so that it does not hang in the eyes.
8. Knows how to prevent or treat pediculosis.

SUGGESTED ACTIVITIES AND PROCEDURES

The care of the hair is to be emphasized in this grade. Discuss with class the growth of hair, the need of keeping scalp in good condition through cleanliness and through massage. Why is the massage good for the hair? To stimulate interest in clean scalps, demonstrate a shampoo. If this is not advisable, have the class work out the procedure step by step for giving a shampoo and caring for brush and comb. Have an inspection to find whether all pupils arrange hair so that it will not fall into the eyes. Ask a boy and a girl to report on the following: What would you do if you found lice in your hair when your mother was either ill or away from home? Choose pupils who will not be embarrassed by this question and who will give practical suggestions.

CARE OF THE TEETH AND MOUTH

EVIDENCES OF PUPIL GROWTH

1. Continue emphasis on practices suggested for previous grades and review knowledges given if necessary.

SUGGESTED ACTIVITIES AND PROCEDURES

Work out a health knowledge test for grade five which will indicate whether or not the pupils understand clearly the points discussed under this topic in preceding grades. For checking on the practices related to this unit, use questions and suggestions under Care of the Nose, Throat and Ears, page 69.

VIII. Prevention of Communicable Disease and Other Illnesses

EVIDENCES OF PUPIL GROWTH

1. Cooperates in making worthwhile the morning survey for indications of communicable disease.
2. Knows the morning survey helps to protect the well child from exposure and the ill child by provision of attention to his needs.
3. Cooperates with his parents in efforts to check "colds" in an early stage.
4. Knows colds may be passed from one person to another by using a common drinking cup.

5. Refrains from using cup, fork or spoon of another person until dishes are washed thoroughly with soap and hot water and rinsed with scalding water.

SUGGESTED ACTIVITIES AND PROCEDURES

After discussion on what the school does to prevent the spread of communicable disease, suggest that the class write a little play on "A Health Project that Paid." Situation: a case of measles in the grade. Procedures used to prevent an epidemic: formal morning survey (see page 11) at school, care in eating with clean hands at school and at home, strict observance of quarantine, results secured.

To stimulate an interest in Numbers 3-5, each pupil writes an account of "What My Family Does to Prevent Colds." The story will be about each one's own family. It should include, also, the measures taken to prevent the spread of the common "cold" in the family when one member has a "cold."

IX. Clothing

EVIDENCES OF PUPIL GROWTH

1. Wears clothing with greatest weight hanging from the shoulders.
2. Prefers to wear loose clothing suitably adjusted for comfort and vigorous activity.
3. Knows that tight clothing like garters hinders the circulation of the blood.
4. Knows that tight belts or bands may hinder the work of the organs in the body.
5. Chooses to wear a hygienic shoe.
6. Refrains from wearing waterproof material except on appropriate occasions.
7. Wears a suitable suit when swimming.

SUGGESTED ACTIVITIES AND PROCEDURES

In this grade let the emphasis be on clothing suitable for play. Discuss the need of freedom for activity and simplicity for safety when selecting garments for play. Give pupils a general idea of bodily structure that they may understand the harm of tight clothing. Nos. 5 and 6 will also be included in Care of the Feet, page 69.

X. Safety Education

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Prefers to prepare and train for good adventure rather than foolishly suffer from bad adventure.
2. Desires to prevent accidents in the community and to interest others in safety practices

3. Knows the wise way to do a thing is, also, a safe way.
4. Knows that right living helps to keep people fit and thus aids in the prevention of accidents.
5. Regards carelessness and recklessness as indications of poor thinking.

SUGGESTED ACTIVITIES AND PROCEDURES

Place the following statements on the board at various times:

1. Better prepare and train for good adventure than foolishly suffer from bad adventure.
2. Prevention of accidents in the community is one responsibility of citizenship.
3. The wise way to do a thing is, also, a safe way.
4. Right living helps to keep people fit and thus aids in the prevention of accidents.
5. Carelessness and recklessness are indications of poor thinking.

After discussions, call on some pupils to be prepared to illustrate one with a story read or better some experience known to the pupil.

SAFETY EDUCATION RELATIVE TO TRAFFIC AND THE USE OF STREETS AND HIGHWAYS

EVIDENCES OF PUPIL GROWTH

1. Knows rules for pedestrians, bicycles, wagons, and automobiles when on the highway.
2. Observes traffic regulations when traveling on highway.
3. Avoids using railroad tracks as a pathway.

SUGGESTED ACTIVITIES AND PROCEDURES

In efforts to secure results in safety practices related to traffic refer to those suggested for former grades. Pupils give reasons why it is necessary to give attention to these practices in these grades. Discuss purpose of safety patrols and what the fifth grade can do to help prevent accidents on the street or highway. If there is a club in grade five, have a committee on safety to report progress made. Ask some boys to report to class on Number 1. Use bulletin board to make any interesting announcements. Report on safety posters available.

References

AMERICAN AUTOMOBILE ASSOCIATION, Safety Department. Secure posters and teaching units from local office.

NATIONAL SAFETY EDUCATION ASSOCIATION. Safety Education Magazine. (Poster each month.) National Safety Education Association, 1 Park Avenue, New York.

SAFETY EDUCATION RELATIVE TO THE PREVENTION OF FIRE**EVIDENCES OF PUPIL GROWTH**

1. Discovers ways in which the fifth grade may help to prevent fires.
(See causes of fires listed in grade four.)
2. Knows the possible danger of having gasoline or other combustible fluid in a building.
3. Knows that there is danger in putting excelsior or other highly flammable material in a stove or furnace.
4. Makes certain not to turn a kerosene stove or lamp wick up too high at first.
5. Makes certain to clean and thoroughly dry kerosene lamps and stoves and to trim the wicks straight.
6. Is familiar with the best methods for extinguishing brush fires.

SUGGESTED ACTIVITIES AND PROCEDURES

Bring these situations into a project on Safety at Home, page 74.

PLAY AND OTHER ACTIVITIES**EVIDENCES OF PUPIL GROWTH**

1. Knows danger of handling firearms, toy pistols, and rifles.
2. Refuses to play with firearms.
3. Avoids needless handling of insects.
4. Knows common insects which may harm us.
5. Is careful to avoid accidents when playing with hard ball.
6. Reports defects in playground apparatus to teacher.
7. Dives only from end of pool where provision has been made for diving.
8. Knows that the space in front of the diving board should be clear before diving.
9. Refrains from meddling with shower control.
10. Avoids leaning out of windows, over banisters, porch, or fire escape.
11. Reports or repairs holes in mats or defective treads on stairs which might cause an accident.
12. Refrains from pushing a switch button to see the results.
13. Knows danger of climbing trees or poles near high voltage circuits.
14. Stays away from railroad yards.
15. Uses precaution to control fire when playing in shacks and having camp-fires.

SUGGESTED ACTIVITIES AND PROCEDURES

Use all situations at school that provide opportunities for pupils to learn these safety practices through experience. For the other prac-

tices make posters, discuss situations, and call for reports of accidents that have occurred while child was playing. Ask how the accidents might have been prevented.

PREVENTION OF ACCIDENTS IN THE HOME

EVIDENCES OF PUPIL GROWTH

1. Knows that orderliness in the home helps to prevent accidents.
2. Helps in securing safety practices at home.
3. Knows some ways in which safety should be practiced at home: proper care of oily rags, mops, cloths saturated with furniture polish; use of gasoline, cleaning fluids, celluloid and their dangers; care of medicine cabinet (all poisons out of reach of young children and properly labeled with warning); proper disposal of flammable rubbish and ashes in metal containers; proper care of lighted matches and cigarette stubs; use and care of matches; care in lighting and turning off gas; care in leaving hot fluids where no one may be burned; proper places for pins, needles and scissors; chimneys kept clean.

SUGGESTED ACTIVITIES AND PROCEDURES

Stimulate class to work out movie on "Safety at Home." Assign to each pupil one situation included in this unit or one under Prevention of Fire, page 73. If more situations are needed, use those suggested for grade four. Ask each pupil to illustrate with free hand drawing or cut out pictures the safety practice he is stressing. As the movie is given let each explain briefly the lesson he wishes to emphasize. Invite some class to see the movie or have it presented as a program for parents when they visit school.

XI. First Aid

EVIDENCES OF PUPIL GROWTH

1. Knows how to sterilize a needle to remove sliver.
2. Knows some common antiseptics and knows when and how they should be used.
3. Tries to keep all wounds clean to avoid infection.
4. Knows the first aid treatment for fainting and poison ivy.

SUGGESTED ACTIVITIES AND PROCEDURES

Each situation included in Nos. 1-4 should be demonstrated by class.

XII. Stimulants and Narcotics

EVIDENCES OF PUPIL GROWTH

1. Is learning that his ability to keep fit, to play his best, and to develop self-control is lessened through the use of tobacco and alcoholic drinks.

2. Improves his ability to gain control over his habits.
3. Refuses candy, powders, and drinks offered by strangers, and helps younger children to refuse them.
4. Knows that medicines should be taken only under the direction of a physician.
5. Understands that indulgence in alcoholic drinks is also the cause of many accidents.

SUGGESTED ACTIVITIES AND PROCEDURES

One method of approaching the lessons on the use of alcohol, tobacco and drugs is to make a study on self-control. Explain that self-control means (1) making one's self do what ought to be done, (2) keeping one's self from doing the things one ought not to do. Discuss some of the following: What incidents have occurred this year in school which called for self-control? Were these only in health classes? How may one help younger children to gain self-control? Name persons about whom you have read who showed self-control. What probably helped them to gain such control? What study habits require self-control? What effect on self-control have the use of alcoholic drinks and drugs? Study texts to learn these effects. Suggest that pupils list workers (engineers, machinists, factory workers, bridge builders and others) whom they think should have good self-control. Ask pupils to explain why they are interested in such people not using alcoholic drinks or drugs.

XIII. Wholesome Personality

EVIDENCES OF PUPIL GROWTH

1. Has a wholesome interest in friends and sports or hobbies, or in all.
2. Develops increasing initiative in work and play.
3. Respects the rights and property of other persons.
4. Cooperates with his companions in work or play.
5. Tries to overcome shyness or embarrassment in the presence of strangers, or in other social situations.
6. Takes part in social conversations but does not interrupt or monopolize the conversation.
7. Is able to work 4-6 hours daily on school work, errands, and the like, without undue fatigue.
8. Develops orderly habits of work, doing work promptly without procrastinating.
9. Has pride in useful work and respect for worthy laborers.

SUGGESTED ACTIVITIES AND PROCEDURES

Pupils are not to be conscious of working for these objectives as such, but the teacher is alert to use situations that will give pupils opportunities for growth in Nos. 1-9.

GRADE SIX*

I. Cleanliness

EVIDENCES OF PUPIL GROWTH

1. Knows why food molds and the uses of mold. (Review Science in Grade IV.)
2. Knows the nature of bacteria; some of the things bacteria do; and the effect of sunshine on bacteria.
3. Knows how the water supply in the community is made safe.
4. Knows how the disposal of sewage is made in the community.
5. Helps take responsibility of caring for refuse in his home.
6. Helps to protect the health of his neighbor as well as his own.

SUGGESTED ACTIVITIES AND PROCEDURES

Recall the lesson on molds in science for grade four. Direct this interest to the study of bacteria. Call for reports on situations included in Nos. 3-5. Discuss how all three of these situations may be related to the health of the community.

REFERENCES FOR UNIT ON BACTERIA

BIGELOW, MAURICE A., and BROADHURST, JEAN. *Health for Every Day*. Silver, Burdett and Company, New York. 1924. Chapter 7.

TURNER, C. E., and COLLINS, GEORGIA B. *Cleanliness and Health*. D. C. Heath and Company, New York. 1926. Chapters 5, 6 and 7.

WINSLOW, C. E. A., and HAHN, MARY L. *The New Healthy Living*, Book I. Charles E. Merrill Company, New York. 1929. Chapter 19.

HALLOCK, GRACE T., and TURNER, C. E. *Health Heroes, Louis Pasteur*. Metropolitan Life Insurance Company, New York.

II. Fresh Air and Sunshine

EVIDENCES OF PUPIL GROWTH

1. Knows the characteristics of fresh air and good ventilation.
2. Is conscious of poor ventilation.
3. Gives attention to ventilation when indoors.
4. Knows why sunshine is needed in the room part of the time.
5. Knows why and how we breathe, and the purpose of breathing.
6. Knows why we should breathe through the nose.

* Before working on any unit for this year, the teacher should review the material under the same topic given in preceding grades. Some outcomes will require additional emphasis. In such a case a new approach should be used and activities introduced which will appeal to the interest of the older group. The material for Grades Five and Six has been divided between the two grades, so that there will not be repetition that tends to make the work dissatisfying to the pupil. Where the same topic is repeated, a different approach or emphasis will be found.

7. Knows oxygen is the most important element in air for human beings.
8. Knows that the blood carries oxygen from the lungs to different parts of the body.
9. Controls breathing when talking or singing (is careful not to emit spray from mouth).
10. Avoids breathing dry dusty air.
11. Knows some effects that posture, clothing, exercise, and adenoids or enlarged tonsils may have on breathing.
12. Gives attention to posture and clothing that aid in breathing.
13. Cooperates with parents and physician when treatment is necessary for breathing passages.

SUGGESTED ACTIVITIES AND PROCEDURES

Help the pupils to appreciate the need for good ventilation and by what methods it is secured in their classroom. Discuss what is good ventilation; how it is secured in school, in living rooms, in sleeping rooms; what precautions should be used when gas is used as fuel; what is the effect of poor ventilation upon ability to study. Ask janitor to explain the system of ventilation used in the school. From this lesson lead to one on the use which the body makes of the air we breathe. The approach to this lesson may be made after an activity period which has been rather strenuous and all have returned to the room breathing more deeply than usual. Call attention to the rising and falling of the chest. Ask for the cause. From this lead to discussions on why we breathe, how we breathe and the purpose of breathing. Pupils consult their own texts to discover answers, and secure supplementary texts that may help to give clearer statements on some of the points discussed. Secure charts that will help pupils to trace the journey made by the air first to the lungs, then to the heart and to the cells. Pupils make list of words added to their vocabulary under this unit, as respiration, circulation, mucous membrane, mucus, oxygen, arteries, veins, carbon dioxide, cells, relax, contract, pulse, tonsils, adenoids. Demonstrate the effect of posture, clothing, and exercise on breathing. Compare the rate of pulse after sitting a half hour, with the rate after running for several minutes. Ask a Boy Scout to explain why it is necessary for a Scout to understand this unit well.

III. Food

EVIDENCES OF PUPIL GROWTH

1. Knows how to select a good but inexpensive diet.
2. Knows how to select a balanced diet which includes vitamins, mineral salts, proteins, starches and sugars, fats, roughage and liquids.
3. Knows that one needs muscle-building foods like milk, eggs, and meat; energy producing foods like the starches, sugars, and fats;

regulating and protective foods like the foods that furnish vitamins, mineral salts, and roughage.

4. Knows that vegetables supply roughage which aids elimination.
5. Knows that mineral salts in vegetables are usually more abundant directly beneath the skin.
6. Knows that cooking vegetables in their skins helps to prevent loss of mineral salts.
7. Knows that over-cooking vegetables makes them indigestible.
8. Knows that raw vegetables should be washed thoroughly.
9. Knows that over-ripe fruits may cause digestive disturbances.
10. Knows that under-ripe fruits contain large amounts of indigestible starch.
11. Knows that all fruits should be washed before eating.
12. Knows that fruits supply natural sugars which are more wholesome than manufactured sugars.
13. Knows that sugar supplies energy but no vitamins, proteins, fats, or minerals.
14. Knows that excessive eating of sweets develops an habitual craving for them.
15. Knows that all meats should be cooked sufficiently long to destroy any bacteria, or parasites that may be present.
16. Knows that meats and fish are highly perishable and require proper home care.
17. Knows that meat two or three times a week is sufficient for children.
18. Knows that protein may be furnished from other sources than meat.
19. Knows that water is necessary for the most healthful actions of the bodily tissues and organs.
20. Knows why impure ice is dangerous.
21. Knows practices which help to prevent constipation.
22. Knows that digestion of starch begins in the mouth.
23. Knows the general structure and work of the stomach and intestines.
24. Understands what is meant by the absorption of digested food material when it is transferred from the intestines into the blood.
25. Knows that the body cells are supplied with food by the circulatory system.
26. Knows practices which aid digestion.

SUGGESTED ACTIVITIES AND PROCEDURES

The following suggested unit has been prepared for this section.

TEACHING UNIT ON BALANCED DIET

Purpose

1. To give pupils the realization of a wholesome diet.
2. To help pupils plan balanced diets at a moderate cost.
3. To acquaint pupils with simple methods in the care and preparation of foods.
4. To interest the pupils in the use of foods so that they will give more attention to the selection of wholesome foods and drinks.

PROCEDURE

Approach. Through interest in diets found in pamphlets received or accounts read in current news, the teacher leads pupils to solve the first problem.

Problem 1. What foods would you purchase if asked to provide a wholesome but inexpensive dinner for a family of five?

Assignment. Each pupil is asked to write the menu used, to make a list of foods selected and to give approximate cost of each.

Activities

1. The class discusses menus reported, giving reasons why certain foods were chosen. The discussion should reveal what knowledge pupils have concerning food values relative to growth, energy, protection and regulation, and as to the food elements furnished by each.
2. The textbooks and reference materials available are examined by the class to find additional information concerning why certain foods should be included in the diet.
3. The class determines essential facts they should remember in selecting foods for growth and health. (See *Foods Needed for Growth and Health*, page 83.)
4. Different groups in class make charts illustrating the three groups of foods, (1) muscle-building, (2) energy-producing, and (3) protective and regulating foods.
5. The final summary of the group leads, through the teacher's direction, to the proposal of solving a second problem.

Problem 2. What will be the cost of food necessary for growth and health to provide a family of five for a week?

Approach. The teacher explains to the class that nutritionists have worked out scientific and adequate diets. She calls attention to the foods which should be the first choice when every penny must count. (See *a Low Cost Diet*, page 83.) She shows them a copy of Table I or II. (See pages 82, 83.) Table I will provide better correlation with sixth grade arithmetic.

Activities

1. The class works out the story of the family.

a. Members: father, mother, a high school boy (17 years old), a sixth grade girl (12 years old), and a pre-school child (5 years old).

b. Circumstances limited

Father, a laborer.

Mother, a good home keeper.

Older children ready to help meet limited budget.

At different stages of development of the unit, pupils take the part of different members of the family and various questions related to the budget are discussed from the viewpoint of the father, the mother, and the children.

Assignment. Various groups of pupils find the local prices of certain essential foods included in Table I. The cost of staple products are reported by the pound rather than per package. Pupils work out the cost of the food for the family of five. As soon as pupils complete this problem satisfactorily, they may work out the cost for their own family.

Activities

1. The class discusses the following questions and others related to the unit.

- a. Why is each of the foods listed, included in the diet? (See A Balanced Diet, page 83, textbooks and reference material.)
- b. On what experiments and studies do you think the nutritionists have developed these diets?
- c. What change, if any, should one make in one's diet during very warm or cold weather?
- d. Are there any foods in this diet which are not found in our own, and if so, why?
- e. What advantages are there in having a garden?
- f. What wild leaves are used in our community as food?

This last question opens the way for a discussion of how these wild leaves may be prepared to be palatable and thus leads to the third problem.

Problem 3. How may we prepare food so that it will be safe, nutritious and palatable?

Approach. If possible, the teacher secures a wild green leaf used as food, for example, water cress.

Activities

1. One pupil washes her hands, then washes cress thoroughly. Each pupil is given a taste of it.
2. The pupil explains why thorough washing is necessary.

3. The class discusses how this plant is used by mothers.
4. The class lists green leaves used in salads or as a cooked vegetable.
5. The class discusses methods of caring for foods and of preparing foods. (See Care and Preparation of Foods, page 84, also, textbooks and reference material available.)

Assignment. Pupils prepare menus including only foods which were found in the limited budget. (See Guide to Planning Menus in Low Cost Balanced Diet, page 85.)

Activities

1. Class discusses menus and checks them according to cost and to foods they furnish for growth, energy, and health.
2. In discussing these menus the teacher leads pupils to thinking of the use we make of the food eaten and suggests the last problem of the unit.

Problem 4. How do we use the food which is eaten?

Approach. The teacher serves unsweetened crackers to the class.

Activities

1. Each pupil chews cracker slowly to get the sweet taste.
2. Texts are examined by pupils to learn what change was made in the cracker while in the mouth. This makes the approach to the first step in digestion.
3. The class examines the outline of the food tract given in text and locates the mouth, the stomach, the small and large intestine.
4. Discussions follow which include

Why do we need to chew food carefully?

How does the food reach the stomach?

What takes place in the stomach?

What effect does vigorous exercise have upon digestion directly after a hearty meal?

What takes place in the small intestine? In the large intestine?

How does the food pass from the food tract to the blood? To bones and muscles?

Why are fluids like water and milk necessary in the diet?

What advantage is there in eating meals regularly?

5. The class prepares a list of suggestions for aids to digestion and elimination.
6. Each pupil reports any practices which have been improved or started since beginning work on this unit; also any suggestions on the balanced diet which have been used at home or in buying foods.

NOTE. The teacher is not to expect technical details in digestion, absorption and assimilation to be given by pupils. The processes are to be discussed so as to give pupils a general idea how food is changed into blood, bone, and muscle. The main emphasis is to be on the fact that food is needed for growth, strength, and health.

Table I
WEEKLY AMOUNTS OF FOODS NECESSARY TO MEET MINIMUM NUTRITION NEEDS IN LOW COST DIETS

Food	Children Under 2		Children 2-6 yrs.		Children 6-12 yrs.		Children 12-16 yrs.		Over 16 yrs. and Adults
	7 qts.	1-2 oz.	7 qts.	3-4 oz.	5-7 qts.	4 oz.-1 lb.	7 qts.	12 oz.-1 lb.	
Milk	7 qts.	1-2 oz.	7 qts.	3-4 oz.	5-7 qts.	4 oz.-1 lb.	7 qts.	12 oz.-1 lb.	3½ qts.
Butter and other Fats	1-2 oz.	3-4	3-4	0-6 oz.	3-4	6 oz.-1 lb.	3-6	1-2 lbs.	12 oz.-1 lb.
Eggs	3-4	0-2 oz.	4 oz.-1 lb.	2 lbs.	2-3½ lbs.	2½-4 lbs.	3	1½-2 lbs.	1½-2 lbs.
Meat and Fish	0-2 oz.	6-8 oz.	8-14 oz.	12-20 oz.	12-20 oz.	1-2½ lbs.	2-4½ lbs.	2-4½ lbs.	2-4½ lbs.
Bread	4 oz.-1 lb.	0-3 oz.	0-6 oz.	6-8 oz.	6-8 oz.	8-12 oz.	8-16 oz.	2-3½ lbs.	2-3½ lbs.
Cereals	6-8 oz.	½-1 lb.	½-1 lb.	2-3 lbs.	3 lbs.	3-4 lbs.	3-4 lbs.	3-5 lbs.	3-5 lbs.
Sugar	0-3 oz.	½-1 lb.	½-1 lb.	1-2 lbs.	2-4 lbs.	3-4 lbs.	3-4 lbs.	3-4 lbs.	3-4 lbs.
Vegetables									
Potatoes	½-1 lb.	1-2 oz.	1-2 oz.	2-4 oz.	2-4 oz.	4-8 oz.	4-8 oz.	4-8 oz.	4-8 oz.
Green and Root	½-1 lb.								
Dried Beans Peas or Lentils
Fruit									
Fresh									
Oranges, Apples, Bananas, others in season	2-4	oranges for juice or an equal amount of to- mato juice	4	oranges or an equal amount of canned tomatoes	4-7 pieces or serv- ings of any fresh fruit				
Dried	...	1/4 lb.	1/4 lb.	1/4-1/2 lb.	1/2 lb.	1/2 lb.	1/2 lb.	1/2 lb.	1/2 lb.
Cod Liver Oil	1-3 oz.	1-3 oz. if possible	As recommended by physician	As recommended by physician	As recommended by physician	As recommended by physician	As recommended by physician	As recommended by physician	As recommended by physician

These are minimum amounts. One egg daily, fresh fruit daily, and more fresh vegetables, are highly desirable for all children over 2 years and for adults.

Prepared by ANNA DEPLANTER BOWES, B.S.M.A.

In Charge of Nutrition Education, Philadelphia Child Health Society

Table II

A WEEK'S FOOD ORDERS FOR FAMILIES OF VARIOUS SIZES
Prepared by LUCY H. GILLETT, *Nutritionist*

	<i>Quantity for a Family of</i>	<i>Three</i>	<i>Four</i>	<i>Five</i>	<i>Six</i>
Milk (quarts)	14	21	25	28	
Tomatoes (pounds)	1	2	2	3	
Vegetables (pounds)	14	20	25	32	
Fruits (pounds)	2	2	3	3	
Bread and cereals (pounds)	10	14	17	20	
Eggs (number)	6	9	12	18	
Fats (pounds)	2	2	3	3	
Sweets (pounds)	2	2	3	3	
Meat, fish, cheese, dried beans, peas, and lentils (pounds)	4	5	7	8	

FOODS NEEDED FOR GROWTH AND HEALTH

MUSCLE-BUILDING foods like MILK, EGGS, and MEAT which contain protein. Peas, beans, and peanuts also contain protein.

ENERGY-PRODUCING foods like the STARCHES, SUGARS, and FATS which unite with oxygen to produce heat and energy.

PROTECTIVE and REGULATING foods like the FRUITS and VEGETABLES which contain vitamins and mineral salts.

Vitamins are substances found in some foods that are necessary for growth of children and for health of both old and young. Milk, fresh fruits, vegetables, especially leafy vegetables, and cod liver oil furnish vitamins.

The various mineral salts are necessary for good health, good blood, and to help build strong bones and teeth. Milk and vegetables are rich in mineral salts.

A Low Cost Diet

Foods which should be the first choice when every penny must be counted:

Milk—fresh, evaporated or powdered milk.

Bread and cereals—*dark* or *whole grain* bread and cereals are best for growth.

Vegetables—potatoes, cabbage, carrots, onions and the like.

Tomatoes—canned or fresh, oranges (when one cent or less), apples, prunes.

A BALANCED DIET

A balanced diet includes vitamins, mineral salts, proteins, starches and sugars, fats, roughage and liquids.

MILK

Milk should be included in the diet. It meets more needs of the body than any other one food and does it cheaply. It is the best all-round body building food. When possible, children should have a quart

a day. Unsweetened evaporated or whole dried milk has the same value as pasteurized milk.

CEREALS

Dark grain cereals and breads are important for they contain vitamins and minerals that are usually taken away in milling the refined grain foods. The grain foods are cheap sources for energy-producing foods.

VEGETABLES

Vegetables furnish vitamins and mineral salts necessary for health. The mineral salts are usually more abundant directly beneath the skin. Their cellulose supplies roughage which aids elimination.

FRUITS

Fruits, like vegetables, are necessary for health. They also supply natural sugars which are more wholesome than manufactured sugars. Under-ripe fruits contain large amounts of indigestible starch. Over-ripe fruits may cause digestive disturbances.

MEAT, FISH, EGGS

At least one of the muscle-building foods should be included in the diet daily. On days when meat is not served, eggs, cheese, dried peas, beans or lentils should be used. Pig's or lamb's liver is a valuable cheap meat.

FATS

Fats are important as sources of energy, they also help to make some foods more palatable. Lard is usually one of the cheapest forms of fat but is deficient in some of the vitamins found in fats such as butter. When lard is used as the chief source of fat, milk should be furnished liberally in the diet.

SWEETS

Sugar helps to satisfy the appetite. It supplies energy but no vitamins, proteins, fats or minerals. Excessive eating of sweets develops an habitual craving for them. Unrefined cane molasses has more nutritional value than white sugar; it is rich in calcium and iron.

CARE AND PREPARATION OF FOODS

Fruits and vegetables should be washed thoroughly.

Foods should be kept in cool clean places.

Only pure ice should come in contact with foods.

Persons handling foods should be clean and free from communicable disease.

The best methods of cooking vegetables are baking and steaming.

Cooking vegetables in their skins helps to prevent loss of mineral salts.

They should be cooked in a small amount of water and just long enough to make tender. Over-cooking vegetables makes them indiges-

tible. Canned tomatoes should be heated only long enough to become hot. Long cooking destroys their vitamin C value.

All meats should be cooked sufficiently long to destroy any bacteria or parasites that may be present. Meat and fish are highly perishable and require proper home care.

Frying is the least desirable of all methods of cooking. When foods are soaked in fat they are much harder to digest.

GUIDE TO PLANNING MENUS IN LOW COST BALANCED DIET

Every MEAL

Milk for children.

Bread for all.

Every DAY

Cereal in porridge, mush, or pudding.

Potatoes.

Tomatoes (or oranges) for children.

One or more additional fruits or vegetables, especially vegetables of green or yellow color.

Milk for all.

Molasses, sugar, other sweets.

Butter, fat, meat, lard, other fats or oils.

Two to Four Times a WEEK

Tomatoes or raw cabbage for all.

Dried beans, peas, peanuts.

Eggs (especially for children).

Lean meat, fish, poultry, or cheese.

Plenty of water to drink is needed with any diet.

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WILLIAMS, JESSE FEIRING, and DANSDILL, THERESA. Health and Service. Benjamin H. Sanborn and Company, New York. 1929.

WINSLOW, CHARLES-EDWARD AMORY, and HAHN, MARY L. The New Healthy Living, Book I. Charles E. Merrill Company, New York. 1929.

IV. Rest and Sleep

EVIDENCES OF PUPIL GROWTH

1. Knows that plenty of sleep is necessary for good physical development and general health, namely, ten hours for average pupil in this grade.
2. As far as possible, secures desirable conditions for sleep—(1) preparation of self, (2) night clothing, (3) bed, (4) room (safety), (5) ventilation, (6) light, (7) quiet, (8) regular bed time, (9) ten hours at least, (10) happy state of mind.
3. Refrains from intense mental activity or excitement just before retiring.
4. Knows that accidents are more likely to occur when we are over-fatigued.
5. Knows that the effect of noise has a tendency to make us less fit to meet emergencies efficiently.
6. Knows that noise is tiring and refrains from disturbing others by unnecessary sounds.
7. Chooses to study and work in a quiet place.
8. Confines parties to one week-end night.

SUGGESTED ACTIVITIES AND PROCEDURES

This unit may be worked out under the following problems:

Problem 1. Why do we need sleep and rest?

Ask different pupils to find reasons for the need of rest by the nerves, the muscles, the heart, the lungs, the stomach, the eyes.

Help the pupils to see the importance of sleep for repairs. Discuss which parts of the body might need rest most. On what nights might a boy's muscles need the most rest? The stomach? The eyes? Can any one organ of the body be worked very hard without affecting the other organs?

Problem 2. How may we secure good sleep?

- Through a well organized day's program that includes nourishment and wholesome activity. Have pupils work out their own daily program. (See "The Child's Day," page 14.) Discuss influence on sleep of overeating and of too much excitement.
- Through proper conditions for sleep. Class make a list of conditions for good sleep. Help them to include all points in No. 2. Each pupil make a written report of one's own conditions as "satisfactory" or "unsatisfactory." Ask each to make a note at end of the report of any improvement that might be made; for example, move some piece of furniture to prevent accident if roused suddenly in the night. Help the class to understand that the cross or unhappy child is less likely to rest well. If the teacher feels that many of the pupils are not getting enough sleep show them how to make a graph reporting the number of hours they sleep. Make it clear to the class any record of this type is of no value unless it is truthful. The purpose is not to compete with someone else but to improve one's own record.

RECORD OF HOURS SPENT IN SLEEP
Days of Month

Hours	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
12																
11																
10	.															
9																
8																
7																
6																

Problem 3. How may children rest through the day?

Discuss how changes of activity may often be restful. Find illustrations of this in the school program. Demonstrate how to rest the eyes when working on fine material by looking at distant objects or closing the eyes; to rest the muscles in legs by changing weight onto

other foot when standing for a long time; to relieve muscles in arm by carrying package on the other arm.

Problem 4. What harm may result from over-fatigue?

Discuss relation of fatigue to accidents, also, to body resistance which helps to protect one from common "colds" and other illnesses. Discuss the responsibility of maintaining quiet for others, the advantage of working or studying in quiet places, the effect on school work when movies, parties, and other entertainments occur during the school week.

Problem 5. How may over-fatigue be prevented?

In discussing this problem include Nos. 1 and 2 but give more attention to Nos. 3, 5-8.

V. Play and Work

EVIDENCES OF PUPIL GROWTH

1. Gains greater skill in activities listed for grade five.
2. Knows some ways in which digestion is improved by big muscle activities.
3. Knows that exercise stimulates respiration and heart action.
4. Knows that big muscle activity aids in the elimination of the bodily waste.
5. Knows some of the dangers of excessive physical activity.
6. Does not play hard just before or after meals.
7. Knows why one should not take part in vigorous exercise just before or after a meal.
8. Wears suitable clothing when exercising if possible.
9. Knows the body should be protected from cooling too rapidly after exercise.
10. Knows a bath after exercising is good for the body.
11. Knows why swimming is a good activity.
12. Has room properly ventilated when playing indoors.

SUGGESTED ACTIVITIES AND PROCEDURES

Every available opportunity should be used to correlate the health instruction and practices under this unit with the activities on the playground or in the gymnasium. The unit on posture will make an approach for the discussions on the importance of big muscle activity included in Nos. 2-10.

For games and other activities for this grade see pages 158-160.

VI. Posture

EVIDENCES OF PUPIL GROWTH

1. Knows that good posture aids in the proper functioning of the body, and improves one's personal appearance.

2. Knows that exercise in the fresh air and wholesome food help to build muscles and bones which can hold an erect posture.
3. Wears clothing that allows freedom of movement and shoes that fit properly. (See Feet, page 90)
4. Knows that one's thoughts may affect the posture (effect of worry, sulkiness, joy).

SUGGESTED ACTIVITIES AND PROCEDURES

In this unit there seems to be the best opportunity to include the knowledges related to the muscles and bones suggested for this grade. The approach might be made by asking pupils, "What posture would be our only concern if we had no bones? How would we be able to move?" From these questions lead to discussions on the work of the bones and the muscles. Let the pupils discover the relation of these to good posture. Discuss other conditions that affect posture and the benefits of good posture.

VII. Prevention, Detection, and Correction of Health Handicaps

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Has confidence in the ability of the physician, nurse, and dentist.
2. Has an increasing interest in the health examination.
3. Cooperates with parents and physician when treatment for any handicaps is necessary.
4. Understands that for some illnesses better care can be given at the hospital than at home.
5. Knows the purpose of clinics that are available.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss with the class the value of health services available. Pupils report on the following:

1. Have you had a health examination within a year?
 - a. By a school physician?
 - b. By the family physician?
2. Have you had your teeth examined within a year?
 - a. By a dental hygienist?
 - b. By a dentist?
3. Were any health handicaps found?
4. What corrections have been made?
5. What are you doing to prevent health handicaps?

Assign different pupils to learn of the clinical services available in the community, others to report on hospital service. Call for these reports and have the class discuss the advantages of such services. Although there may be no Health Center for pre-school children, have some child report on this activity.

CARE OF THE EYES

Although no new outcomes are presented in this grade, the pupils are to continue practices to conserve eyesight. If the teacher discovers that more attention should be given to this topic she may refer to the teaching unit on page 67 and review problems she thinks should be studied by the class.

CARE OF THE FEET

EVIDENCES OF PUPIL GROWTH

1. Gives feet proper care.

SUGGESTED ACTIVITIES AND PROCEDURES

Have pupils make a personal survey to learn whether or not each is carrying out the suggestions received in grades four and five on the care of the feet. (See pages 55, 68, 69.)

A Test (This is to remind pupils, not to grade them for a mark.)

1. Check the points of a properly fitting shoe that are satisfactory in your shoes.
 - a. Length _____
 - b. Width _____
 - c. Shape _____
 - d. Heels _____
2. Are shoes in good repair?
 - a. Soles _____
 - b. Heels _____
3. How many times are hose changed each week?
4. Are hose long enough in the feet for free movement of toes?
5. Are you able to care for your own hose?
 - a. Wash them? _____
 - b. Mend them? _____
6. What have you done to protect your feet from infection as "athlete's foot," ringworm, or hookworm?
7. Where do you practice jumping?
8. How do you trim your toenails?
9. How would you care for a blister on the foot?
10. How do your toes point when walking?

CARE OF THE NOSE, THROAT AND EAR

EVIDENCES OF PUPIL GROWTH

1. Follows those practices which help to protect one from common "colds."
2. Avoids those practices which tend to make one susceptible to common "colds."
3. Knows how the nose protects the throat and lungs.
4. Knows what mouth breathing may indicate.
5. Knows that "colds" are caused directly by bacteria which enter the body through the nose or mouth.
6. Knows some of the conditions which reduce the bodily resistance to "colds" as fatigue, chilling the body, constipation, and unhealthy condition of nose and throat.
7. Knows how "colds" may be given by persons who are suffering from "colds."
8. Refrains from using handkerchiefs, drinking cups or dishes and the like which are being used by others, and especially careful when they have "colds."
9. Knows why one should blow the nose gently instead of forcibly.
10. Knows that it is important to check an infection of nose or throat in the early stage.
11. Knows that it is of benefit to the body to have defects of nose and throat corrected.
12. Knows that the ear is a delicate organ and should be kept clean only by washing it gently.
13. Secures help of a physician when ear wax becomes packed in the ear.
14. Knows the importance of checking ear infections early by consulting physician.
15. Knows that some of the most common causes of deafness are due to diseased conditions of the nose and throat.

SUGGESTED ACTIVITIES AND PROCEDURES

This unit should be developed during a month when conditions are such that "colds" are most likely to be prevalent. Through a report of "colds" lead the class to discuss the possibility of escaping them. Suggest that the class try to be free from "colds" a whole month. Make a chart containing names of pupils and spaces to record any "colds" that may develop. Review all practices relative to "colds" that have been suggested in previous grades. In each case raise the question why the practice should be avoided or continued. In this grade help the pupils to understand that more attention is to be given to finding the cause for certain practices. Help them to discover ad-

justments that must be made due to change in weather, to daily program (sufficient rest), to diet (wholesome foods), and to outdoor activities. Secure different texts so that more suggestions may be found than those in their own books. Good illustrations of the ear will help them to appreciate the need of giving it proper care. Call attention to the possible effect of the common "cold" on hearing. When reviewing the report on "colds" for the month, try to lead the class to desire to avoid "colds" for the remainder of the year. Appoint a committee or pupil to keep the record and report results.

CARE OF THE SKIN, HAIR, AND NAILS

EVIDENCES OF PUPIL GROWTH

1. Appreciates the value of a healthy skin from the standpoint of appearance.
2. Knows what a clean skin really means and how to keep it clean.
3. Knows the general structure of the skin.
4. Washes the body frequently to remove dirt, harmful bacteria, perspiration and dead skin.
5. Knows the effects of warm and cold baths.
6. Waits at least one hour after a meal before swimming or taking a body bath. (Some physicians advise waiting two hours.)
7. Changes frequently underwear which absorbs perspiration, preferably after bathing.
8. Knows how to care for roughness of skin, and chafing.
9. Gives cuts or sores proper care.
10. Knows why common towels may spread disease.
11. Knows how to prevent the spread of skin diseases and infections.
12. Knows that wholesome food, plenty of water, cleanliness, sunshine, fresh air, and daily bowel movements help to keep the skin healthy.
13. Knows that the care of the skin helps to prevent the spread of some diseases, to make a person feel more comfortable, and to make him more acceptable to others.

SUGGESTED ACTIVITIES AND PROCEDURES

Before a study is made of this unit ask pupils to list evidences of the proper care of the covering of the body taken by this class, which they think could be found by a visitor in the school. After the unit has been worked out ask for the same report and help them to see the points added.

THE COVERING OF THE BODY

How does the skin grow?

Secure illustration of the layers of skin and the glands.

What keeps it smooth and firm?

How may it be kept clean?

How can it be protected from chapping? From skin diseases? From infections?

What care should be given cuts or sores?

Why should underwear be changed frequently?

Why does keeping the skin clean make one more acceptable to others?

What care should be given the hair and nails? (See pages 55, 56, 69, 70.)

Help the pupils to realize that freedom from skin disease, from some infections, from pediculosis, from unpleasant odors are evidences of proper care of the skin and its appendages. Stimulate interest in this unit by arranging for demonstrations of a manicure, a shampoo, special care of a cut or other injury to skin.

CARE OF THE TEETH AND MOUTH

EVIDENCES OF PUPIL GROWTH

1. Knows the general structure of the tooth.
2. Knows the difference between the first and second teeth and when the second teeth appear.
3. Knows the nature of decay.
4. Knows some causes of tooth decay and what measures are useful in avoiding them.
5. Knows foods that help to build sound teeth.
6. Finds satisfaction in giving teeth proper care.

SUGGESTED ACTIVITIES AND PROCEDURES

Call the pupils' attention to the survey of the first permanent molar given in grade four. (See page 51.) Ask each to make the same report on his six-year molars and also on the following questions:

How many second teeth have been extracted?

How many cavities are visible in your mouth?

How many cavities have been filled?

What have you done to give your teeth proper care?

To interest pupils in the knowledges to be acquired concerning the teeth, work out a movie, "What Jane Learned from the Dentist." Let the different scenes represent the charts, models, pictures and posters she saw in his office. They should include the points in Nos. 1-5. Have pupils write the parts taken by Jane and the dentist. Make it clear that the dentist is able to detect tiny cavities that we are not able to discover by ourselves and the sooner these are given attention the less trouble there will be.

VIII. Prevention of Communicable Disease and Other Illnesses

EVIDENCES OF PUPIL GROWTH

1. Has an understanding of bacteria as the cause of disease or infection, without undue fear of them.
2. Knows the effect of sunshine on bacteria.
3. Avoids contact with articles handled or worn by one who has a communicable disease.
4. Regards it as part of one's responsibility to protect other persons from communicable disease from which one is suffering.
5. Knows that flies, foods and fingers may be carriers of infection and how to protect oneself from them.
6. Knows where to secure reliable information and advice on health questions.
7. Avoids the use of patent medicines and self-prescribed drugs.
8. Observes health practices which help protect one from tuberculosis
9. Knows some of the measures that the State Department of Health has taken to protect the health of the citizens in the community.
10. Cooperates with the health officer in preventing epidemics.

SUGGESTED ACTIVITIES AND PROCEDURES

The units on Cleanliness and Fresh Air and Sunshine (see pages 76-77) should make a basis for this unit. After the class has had discussions on the different phases of this topic and hunted in the available texts for material let them write a story on "Keeping our Town Free from Sickness." Assign chapters to different groups. One might be written on each of Nos. 1-10. No. 5 might be divided into three chapters. Have the chapters read in class and corrected by group. In discussing No. 7 help pupils to realize reputable physicians do not approve the securing of patents on medicines.

IX. Clothing

EVIDENCES OF PUPIL GROWTH

1. Regards clean and tidy clothes as essentials to good living.
2. Knows in general what kind of clothing is suitable for different temperatures and weather conditions and why.
3. Chooses clothing of suitable size and style, suspended from the shoulders.
4. Gives clothing proper care.
5. Knows how the body regulates the temperature of the body and how suitable clothing may help.

SUGGESTED ACTIVITIES AND PROCEDURES

Work out posters showing clothing suitable for boys and girls of this grade. Attention should be given to the season, to materials used, and to the style of garments. Reports may be given of the care each takes of one's clothing as to brushing, cleaning, mending, keeping in proper places, wearing at appropriate times. Let some of the pupils who carry out some of these practices with the best results demonstrate how they meet with such success. The class then selects best suggestions made and a copy is included in the folder containing posters on clothing. These suggestions should be followed up occasionally to learn what use pupils are making of them.

X. Safety Education

GENERAL

EVIDENCES OF PUPIL GROWTH

1. Knows that accidents are more likely to occur when we are over-fatigued.
2. Knows that the effect of noise has a tendency to make us less fit to meet emergencies efficiently.
3. Knows that irresponsible fault finding is disturbing and often causes accidents.
4. Knows that worry causes unnecessary accidents.
5. Realizes that friendly counsel when one is wrong is helpful in establishing right conduct.

SUGGESTED ACTIVITIES AND PROCEDURES

Nos. 1 and 2 are included in the unit on Sleep and Rest, page 86. Use some incident that occurs at school or one found in reading that may give an opportunity to open discussions on Nos. 3 and 4. Help pupils to learn No. 5 by personal experience.

USE OF STREETS AND HIGHWAYS

EVIDENCES OF PUPIL GROWTH

1. Knows that the traffic regulations are made for the protection of citizens in the community.
2. Is increasingly taking responsibility to prevent accidents on the street or highway.
3. Knows the safety measures to be observed at railway crossings.
4. Keeps the garage door open when engine in car is running.
5. Knows the danger of suffocation from monoxide gas when engine in car is running in a closed garage, or when in a closed car outdoors.

SUGGESTED ACTIVITIES AND PROCEDURES

Organize a safety committee that will keep reports of accidents in the community. Discussions should bring out how some of these might

be prevented. Have some one report to the class the traffic regulations in the community or nearest town if the school is in a rural district. Let the class determine how they may help prevent traffic accidents at school and in the community. If the class decides that many people do not realize the danger from monoxide gas, call for suggestions of what the school may do to help inform the community.

PREVENTION OF FIRE

EVIDENCES OF PUPIL GROWTH

1. Knows how to escape from a burning building: close windows and doors to prevent drafts; if possible, tie wet handkerchief over nose and mouth to keep smoke from lungs; avoid breathing deeply; make escape by crawling on floor following wall as guide (air there freer from smoke); if all escape is cut off, go to window but do not jump except as a last resort. (Fireman or someone else will try to rescue you.)
2. Use matches, candles, lamps, torches, lanterns, gas, gas and electrical appliances carefully.

SUGGESTED ACTIVITIES AND PROCEDURES

Propose to the class that they prepare an illustrated book on "Safety in the Home." The first section will be "Safety Practices in Case of Fire" (see Suggested Activities and Procedures, page 58.), the second, "Preventing Fires." These two should include all situations listed in Nos. 1 and 2. Drawings may be simple straight line figures that illustrate the lessons to be taught. Keep suggestions short but clear. See page 97 for other sections.

PLAY AND OTHER ACTIVITIES

EVIDENCES OF PUPIL GROWTH

1. Uses caution when trying stunts in the water.
2. Refrains from diving until one knows how to swim.
3. Avoids diving in shallow water or in dangerous places.
4. Knows what to do when one discovers a broken live wire: guard spot; send some one to notify police; do not touch a person in contact with live wires; if accident is at home, turn off electric current.

SUGGESTED ACTIVITIES AND PROCEDURES

Call on different pupils who swim for safety practices which they follow. Pupils who have been to camp report on the safeguards used and the instruction on safety given to the children. Pupils name safe places for diving in their own community and report places that are not. Ask groups to work out dramatizations of No. 4; assign to one group a home accident, to the other an accident on the street after a storm.

PREVENTION OF ACCIDENTS IN THE HOME

EVIDENCES OF PUPIL GROWTH

1. Knows that electrical appliances should be handled with care; that metals, water, the human body and anything damp are conductors of electricity; that rubber, glass, porcelain, wood and dry materials such as several thicknesses of cloth are non-conductors.
2. Knows that the human body is a conductor and should not touch wires or anything which may be charged with electricity.
3. Knows there is danger in turning electric lights on or off when standing on a wet floor or in a wet bath tub; in touching electrical fixtures with wet hands or damp cloth; using worn or frayed cord on an electric light, or other appliance; in leaving an electric iron connected after using it.
4. Handles electrical appliances correctly.
5. Knows the danger of touching a faucet and an electric light at the same time.
6. Knows that an electric device should not be left without making sure that the current is turned off.
7. Warns other people who are not observing these precautions about electrical fixtures.
8. Uses care in handling hot liquids.
9. Uses care in handling hot utensils.
10. Avoids touching handles of pans which have been over hot flames.
11. Avoids accidents from steam.
12. Knows that having a safe place for everything and everything in a safe place helps to reduce accidents in the home.
13. Knows the danger of falls on slippery floors; on small rugs; over rugs or other obstacles; on steps and stairs; from chairs and other ladder substitutes, or from ladders; from windows and porches when railings and screens are defective.
14. Tries to prevent accidents on icy walks at home.
15. Knows local ordinances regarding the care of sidewalks, disposal of snow on the streets.

SUGGESTED ACTIVITIES AND PROCEDURES

Let the situations in this unit furnish topics for other sections in the book on "Safety in the Home," page 96. They may be "Safety with Electrical Appliances," "Less Burns in the Home," "Preventing Falls at Home." Help the pupils to take pride in the preparation of this book. When completed this book should be available for examination by visitors and members of the faculty.

XI. First Aid

EVIDENCES OF PUPIL GROWTH

1. Is able to tie a square knot and to adjust simple bandages.
2. Is able to apply a tourniquet.
3. Knows the first aid treatment for burns, sunburn, sunstroke, and heat exhaustion.
4. Knows the value of sun tan and the danger in sunburn.
5. Knows what to do in case of drowning emergency.
6. Has developed skill in method of reviving a person who has been rescued from drowning.

SUGGESTED ACTIVITIES AND PROCEDURES

Nearly all lessons in first aid may be developed through demonstrations. These should be given by different pupils so that all will have experience. As pupils gain skill let them be leaders in helping others. In this way several groups may be working under the supervision of the teacher with the help of these pupil assistants. Before teaching pupils to apply a tourniquet have them recall what they learned about veins and arteries. Explain why it is necessary to know which has been wounded.

REFERENCE

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XII. Stimulants and Narcotics

EVIDENCES OF PUPIL GROWTH

1. Uses no tobacco and other narcotics.
2. Understands what are included under alcoholic drinks.
3. Understands the harm of narcotics.
4. Knows that the use of tobacco is harmful mentally and physically to growing children.
5. Knows that when children deceive their parents about smoking, it does additional harm to their own character.
6. Knows the effects of alcohol on the body (1) impairs strength, endurance (ability to hold out to the end), and skill; (2) causes mistakes and accidents; (3) excessive use tends to cause rapid deterioration—physical, intellectual and emotional.

SUGGESTED ACTIVITIES AND PROCEDURES

Discuss what is understood by narcotics; the fact that the Government regards stimulants and narcotics as important enough to have laws passed for the control of their production and distribution; the

effect of the use of tobacco and alcoholic drinks on boys and girls; the danger of the use of drugs; the advantage of the non-use of narcotics to boys and girls. Suggest that each pupil work out a trip he would like to take during vacation. It may be by air, water or land. After the route and the means of transportation have been determined, ask each to list all the employes helping to make the trip possible, whom the pupil would wish to be non-users of alcoholic drinks. Pupils compare lists and state definitely why they would object to these employes being users of alcoholic drinks.

XIII. Wholesome Personality

EVIDENCES OF PUPIL GROWTH

1. Meets difficulties squarely without avoiding the issue and is learning not to avoid his duties simply because they are disagreeable.
2. Develops increasing independence and ability to solve his own problems.
3. Refrains from brooding and worrying.
4. Is beginning to develop high ideals of manhood and womanhood.
5. Uses only suitable, clean language.
6. Relationships with the opposite sex are wholesome.
7. Shares in responsibilities at home or school when advisable.
8. Is honest in his work.
9. Refrains from practices which are based on superstition alone.

SUGGESTED ACTIVITIES AND PROCEDURES

The results in this section are to be secured through the use of the daily experiences of the pupil rather than any lesson on the topic. The teacher may take time for discussions occasionally which will help pupils to think more clearly and thus to build the attitudes and to establish the practices desired. For example, a case might be presented to the class for study and for suggestions of what to do.

Case 1. Robert says that it is "bad luck" to walk under a ladder. He becomes very much distressed when his father passes under one although assured the ladder is solid and that no one is on it who might drop some tool. Discuss, when it may be dangerous to pass under a ladder. Can you think of any way this superstition might have started? Perhaps someone may have wished to warn a child. Which would you rather have an older person do, try to frighten you into avoiding danger or help you to think clearly why you should do the right thing? How would you try to help Robert?

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(See Bibliography, pages 163, 164.).

For Pupils

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GRADES SEVEN AND EIGHT

HEALTH INSTRUCTION

The material presented in this course for seventh and eighth grades is approached from a somewhat different viewpoint than that of the first six years. The difference is to be found largely in the points of emphasis. In grades one to six, inclusive, the emphasis is placed primarily on the formation of proper health habits and attitudes without giving a detailed consideration to human physiology. Beginning with the seventh year, material is included which gives the child a basic physiological understanding of the necessity for certain health observances.

In the selection of the units of instruction, an effort has been made to select those of particular importance at these ages, and for those who will leave school before having the opportunity to continue a study of the units provided for grades above the eighth. The units suggested, together with the number of periods to be given to each, are as follows:

<i>Unit</i>	<i>Grade VII</i>	
	<i>60 Minute Period</i>	<i>30 Minute Period</i>
Safety Education.....	3	6
Physical Activity and Posture	5	10
Stimulants and Narcotics	3	6
The Selection of Foods	13	26
The Health of the Respiratory System	12	24

<i>Grade VIII</i>		
<i>Unit</i>	<i>60 Minute Period</i>	<i>30 Minute Period</i>
Safety Education	3	6
Physical Activity and Posture	5	10
Stimulants and Narcotics	3	6
The Control of Infection	10	20
Care of the Special Senses	7	14
Health of the Circulatory System	8	16

It is recommended that an equal number of textbooks of each kind be purchased. This method provides more sources of material, broader viewpoints and is no more costly than the purchase of one book. It also means that each unit of instruction can be developed more effectively and extensively.

While the units of the program in health instruction are intended to be complete in themselves, opportunity should be taken to integrate the health problems of other subjects with the material herein offered. For example, the study of history provides many opportunities to relate the success or failure of colonization, wars, or economic movements with health factors. For example, failure of early colonization in America, due to epidemics of infectious diseases, and disease due to contaminated food; typhoid fever and smallpox as factors in the conduct of all of our wars excepting the world war, influenza in the world war; the effects of undernourishment upon the future generation in periods of economic depression.

PHYSICAL EDUCATION

The physical education activities included for grades seven and eight have been selected to meet the essential needs of pupils of these ages. The years represented by grades seven and eight is a period of rapid bodily growth. There is a marked increase in the heart relative to the size of the blood vessels, an increase in chest and lung capacity, and in strength of hand and accessory muscles. It is a period of a tendency to nervous disorders unless an outlet is provided through physical activity.

The types of activity most needed at these ages are self-testing activities and team games. This period of admiration for physical prowess and cooperative effort, offers to the teachers opportunities for providing activities that involve great physical activity which in turn furnish relief for the high blood pressure and escape from marked tendencies and dangers of this age. Activities have, therefore, been selected that further the development of large muscle areas and finer motor adjustments and that also relate motor activity to a social group for the purpose of developing social consciousness.

I. Safety Education

It is recommended that at least three one hour or six half-hour periods be given to safety education each year—in September, December and March—so as to make sure that pupils are familiar with safety practices and have made these practices habitual. It is contemplated that school opportunities shall be utilized in the development of this unit.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Observes traffic signals and laws; enters and leaves trolley or bus in safe way; refrains from clinging to moving vehicles; refrains from hitch-hiking; obeys regulations for pedestrians when walking on highway; swims, roller-skates or ice-skates only in safe places; does not touch poison ivy and unknown fruits; recog-

nizes and avoids harmful snakes; is careful with use of matches; does not crowd, push or trip others; refrains from playing practical jokes that may prove harmful; develops skill in handling the body with ease and quickness in unexpected situations (integrate with physical education); avoids injuring anyone when throwing snowballs, sticks, stones; is careful in the use of explosives or inflammable substances; refrains from sampling medicines that may be around the home; avoids running engine in the garage with the garage doors closed.

ATTITUDES

Is alert to risks in streets, in school and in the home; is considerate of the safety and protection of others; assumes responsibility in protecting self and others; is self-controlled in emergencies.

KNOWLEDGES

1. Safety hazards for the pupil enroute to school

Carelessness in observance of official signs and traffic regulations; crossing of streets; safety zones; police or light signals; entering and leaving trolley; entering and leaving bus; traveling on bicycle, roller-skates, etc.; clinging to moving vehicles; hitch-hiking; railroad and trolley crossings; playing with wires; poison ivy; eating unknown berries or other fruits; snakes.

2. Safety at school

a. Study of safety hazards and means of preventing accidents at schools.

- (1) Fire hazards,—stairways, accumulation of waste, matches, explosives.
- (2) In the building,—crowding, pushing, tripping, pulling chair.
- (3) On the playground,—throwing balls, sticks, stones; nails, broken glass.

3. Safety in the home

a. Learn the most common causes of accidents in the home and means of prevention (care of injured studied later.)

- (1) Falls,—rickety supports, poor light, slippery footing, uncovered openings.
- (2) Burns,—from electricity, fire, steam, powder or hot water.
- (3) Asphyxiation and suffocation.
- (4) Poisons,—containers labelled, storage, spoiled foods.
- (5) Cuts,—tools and tool box, use of pocket knife, axe, opening cans and jars, broken glass, nails.
- (6) Collision with inanimate objects.
- (7) Playing in the streets.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Study history of travel and transportation in America, noting special hazards of each mode.
2. Study of automobile fatalities in the United States; in Pennsylvania; note increase or decrease. Observe current newspaper reports. Discuss those which might have been prevented. Classify apparent causes.
3. Committees make studies of hazards to safety over several of the most widely used routes to school. Suggest ways of avoiding accidents.
4. Organize School Safety Patrol for school children.
5. Organize School Safety Council to study problems during the year.
6. Organize committee on School Safety to report problems to the Safety Council.
7. Learn accident hazards in your building. Make list of where accidents have occurred. Discuss means of prevention.
8. Individuals prepare talks on accidents that have occurred in the home, telling how they might have been prevented.
9. Study of local conditions to determine safe places for coasting, skating, and hiking. Plan school journey to obtain first hand information.
10. Secure cooperation of community authorities to have certain streets made available for coasting with safety.
11. Pupil leaders prepare talks on fire hazards with Christmas trees. Give talks to lower grades.
12. Study of safe practices in reference to Field Days, swimming, automobile trips, camping, Fourth of July.

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II. The Selection of Foods

The emphasis in the seventh year should be on learning to choose foods wisely and establishing desirable habits in relation to eating. Other related phases will be developed in units to be covered in the tenth year.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Eats meals regularly, including breakfast; selects well balanced diet; eats adequate food; buys food economically; eats only clean food; refrains from "washing food down" with water without proper mastication; maintains good posture while eating; eats candy only after meals; uses no tea or coffee; eats leisurely; washes hands before eating; has good manners at the table.

ATTITUDES

Prefers to control weight on the basis of health rather than fashion; is interested in regulating diet on the basis of knowledge rather than whim, taste or appetite; is skeptical of food fads; is habitually cheerful at meal time; desires to practice good manners at meals.

KNOWLEDGES

1. Why the body needs food
 - a. For growth and repair of the tissues.
 - b. To produce energy, including heat.
 - c. To regulate and protect body processes.
2. Food substances that supply the needs of the body
 - a. Protein, carbohydrates, fat, mineral salts, vitamins, water
 - (1) Functions of each.
 - (2) Common foods in which above substances are found.
 - b. Calorie value of the common foods needed by the body.
Amounts of food in calories needed by growing boys and girls.
3. How the body prepares food for its use
The digestive tract

Simple structure and function of the mouth, the esophagus, the stomach, the glands of the alimentary tract, the large intestine, the small intestine.

4. Selecting a balanced diet
 - a. Choosing a balanced breakfast, lunch, dinner. Lunching between meals.
 - b. Selecting food in the school cafeteria.
 - c. Buying food economically.
 - d. Food fads (limited discussion).
 - e. Foods which may promote growth and development.
5. The relation of food to good nutrition

Other factors influencing nutrition,—habits of eating, sleep and rest, activity, strains, age, climate (limited discussion).

6. Care of the digestive system
 - a. Cleaning and dental care of the teeth.
 - b. Drinking plenty of water.
 - c. Eating foods that provide bulk.
 - d. Refraining from eating unwholesome foods, e.g., fried foods, highly seasoned.
 - e. Effect of posture on digestion.
 - f. Habits of elimination.
 - g. Constipation.
 - h. Exercise.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Suggested approach
 - a. Class discussion: Why the football team is required to live on a certain diet.
 - b. Compare the eating habits of Americans with people of other countries. Note factors which influence such habits. Integrate with geography. Discuss reasons for rapidly changing eating habits of Americans.
 - c. Learn some of the eating habits and problems of the members of the class. Questionnaire may be used and reserved for further discussion later.
2. Choosing foods
 - a. Pupils report on their selection of food for a day or more. Check frequently.
 - b. Demonstrate weighing and measuring. Train leaders to assist during the year. Have each pupil weighed and measured. Pupils keep own record on chart. Check frequently during year. Emphasize gain in weight and height over a period of time rather than average height and weight. (The value of weight, height, and age standards is questionable.)
3. Suggested follow-up
 - a. Winter
 - (1) Check on gain in weight and height; report to school nurse, school physician or parent, pupils showing excessive loss or excessive gain in weight.
 - (2) Check on habits of eating. Re-emphasize need for forming desirable eating habits.
 - b. Spring
 - (1) Study problems related to eating: at County Field Day; on picnics; during hot weather; on automobile trip; on camping trip; when swimming.

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III. The Health of the Respiratory System

It is to be remembered that tuberculosis is one of the leading causes of death for the age group 10-19, accounting for approximately 20 percent of the total; that while the mortality from tuberculosis in general has declined 36 percent in the last decade, the rate at the ages 15-25 has declined one half that amount or 18 percent in the same period; that it is more prevalent among girls than boys; and that the control of tuberculosis is largely dependent upon practices of healthful living. This unit necessarily contains much information on the prevalence of respiratory diseases. Particular care should be taken by the teacher not to create morbid introspective attitudes but rather to give reasons for the need of building bodily resistance to disease through the practice of desirable health habits.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Breathes with mouth closed; avoids dusty or smoky air; regulates ventilation properly in sleeping room and other situations; cooperates with the teacher in maintaining proper ventilation in the classroom; avoids poorly ventilated places; adjusts selection of clothing to weather conditions; avoids wearing extra wraps indoors; maintains good posture; develops desirable habits of elimination; maintains regular habits of sleep and rest; gets a sufficient amount of sleep regularly; eats a sufficient amount of food daily; selects balanced meals; gets some sunshine daily; works or plays out of doors daily; takes shower following vigorous physical activity; avoids over-fatigue; regulates willingly and intelligently the amount of social activities in which he participates; avoids contact with persons having colds; avoids coughing or sneezing in other person's face; covers a cough or sneeze with handkerchief; avoids spitting in public places; avoids use of common drinking cup or towel; keeps hands and finger nails clean; consults family physician when he has persistent cold; avoids use of patent medicines for colds; follows advice of physician; cooperates when necessary to have tonsils, adenoids or other physical defects corrected; has annual health examination, including the lungs, by family or school physician.

ATTITUDES

Enjoys being in good health; enjoys sunshine and fresh air; dislikes stale atmosphere; enjoys participation in outdoor recreational activities,—games, hiking, swimming, etc.; appreciates the need for good posture in relation to good health; is willing to use knowledge as a basis for determining behavior in regard to food selection and habits, rest, and adequate clothing of the right type; has consideration for others when infected with a cold; realizes the importance of care of the respiratory system; has a wholesome respect for germs of disease without undue fear of them; is not frightened by the existence of communicable respiratory diseases in the school but appreciates the value of preventive measures.

KNOWLEDGES

1. Why the body needs air.
2. The air passages
 - a. Location, *simple* structure and function of
 - (1) Nose, throat, larynx, trachea.
 - (2) Bronchial tubes.
 - (3) Lungs.
 - (4) Diaphragm and other muscles.
 - b. The breathing process
 - (1) Action during inspiration and expiration.
 - (2) Breathing an involuntary activity. Undesirability of regulating the rate of breathing by breathing exercises. Deep breathing produced by vigorous exercise of large muscle groups.
 - c. The effect of posture on the development and efficiency of the lungs.
 - d. The effect of tight clothing about the chest or abdomen on breathing.
3. How the body uses the air we breathe.
4. The need for pure air.

Oxygen in the air; pure air versus foul air; need for good ventilation, emphasizing—clean air, movement of air, humidity, temperature.
5. Impurities in the air
 - a. Dust in the home, school or in industry; its effect on the breathing passages; function of cilia; sanitary methods of cleaning.
 - b. Excessive smoke in cities; means of prevention.
 - c. Effect of inhaling cigarette smoke.

6. Protecting the respiratory system against disease
 - a. Nature's protection against germs in respiratory tract,—cilia, normal tonsils, adenoid tissue; general good health.
 - b. What we are responsible for—care and good health practices related to food, fresh air, sunshine, etc.
 - c. Provision for healthful surroundings in school and home.
7. Most common infections and obstruction of the respiratory tract
 - a. Common colds
 - (1) Economic factors; absenteeism among workers due to colds; school absences due to colds; colds,—a preventable disease.
 - (2) Effects of colds on air passages; how colds are transmitted from one person to another; means of checking the spread of colds; care of person having a cold,—rest in bed, light foods, proper clothing, elimination, warmth, washing of hands, sneezing, coughing, avoiding public places (the school), etc.; dangers of spread of infection through exercise; dangers of spread of infection through Eustachian tube.
 - b. Sinus infection
Location of sinuses; care of infected sinus.
 - c. Obstruction in air passages
 - (1) Adenoids, enlarged tonsils.
 - (2) Abnormal growth conditions.
 - d. Pneumonia,—a communicable disease
 - (1) Sources of infection.
 - (2) Protection from exposure to colds, measles, whooping cough.
 - (3) Care and prevention.
 - e. Influenza or grip
 - (1) Seriousness of recent epidemics.
 - (2) Preventive measures.
 - f. Tuberculosis
 - (1) Mortality rates in the United States; in Pennsylvania; mortality rates for high school age (increasing between ages 15-24, decreasing at every other age, more prevalent among girls than among boys).
 - (2) Need for development of resistance through general bodily vigor (Over 90 percent of all persons harbor tubercle bacilli at some time).
 - (3) Conditions necessary for the development of tuberculosis (limited discussion).

- (a) Presence of the germ—tubercle bacilli.
- (b) Conditions favoring growth and development of the germs.
- (4) Chief sources of infection.
 - (a) Discharges of person affected.
 - (b) Milk of tuberculous cows.
Raw milk, certified milk, pasteurized milk.
- (5) Predisposing factors
 - (a) Heredity: do not inherit disease.
 - (b) Environment: homes—lack of sunshine, poor ventilation, crowded occupations.
 - (c) Habits of living: overwork, over-fatigue, improper food in inadequate amounts, lack of outdoor air and exercise.
 - (d) Race: susceptibility of Negroes, American Indians, Irish; non-prevalence among the Jews.
- (6) Preventive measures
 - (a) Keep general health at high level; four chief factors,—food, rest, fresh air and exercise.
 - (b) Provide healthful surroundings in school and in home.
 - (c) Recognition of symptoms (Teacher avoid over-emphasis, limit to statement of symptoms without discussion.)
Loss of weight, night sweats, high temperature at intervals.
 - (d) Importance of consulting a physician.
 - (e) Importance of mental attitudes.
 - (f) Necessity for health examination
 - 1¹ Importance of annual examination.
 - 2¹ Importance of early discovery of disease.
 - 3¹ No examination for tuberculosis adequate without X-ray examination; tuberculin test.
 - (g) Social prevention
 - 1¹ Education of the public.
 - 2¹ Legislation.
 - 3¹ Improved housing conditions.
 - 4¹ Adequate hospital and sanatorium facilities.
 - 5¹ Clinics.
 - 6¹ Prevention of predisposing factors,—measles and whooping cough.

(h) Unscientific "cures"

- 1¹ No specific medicines.
- 2¹ No generally accepted vaccines or serums.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Observe breathing at rest; after vigorous exercise such as in a game or short run; note difference in rate of respiration; note movement in inspiration and expiration; discuss part of body affected.
2. Learn how classroom is ventilated; discuss how pupils may help to maintain good ventilation; select committee to check on ventilation; keep record of temperature.
3. Pupil committee report on how cities are overcoming the smoke nuisance.
4. Integrate posture study with physical education; discover individuals with flat, sunken chest, suggest health practices to improve this condition; note improvement during the year.
5. Learn from reports of health examination recommendations in regard to removal of tonsils and adenoids. Try to secure 100 percent correction.
6. Study the life of Trudeau.
7. Study the care of children in open air schools. Emphasize the evidence of improvement through a hygienic regime of living.
8. Make a study of the prevalence of colds among classes; try to improve the situation; endeavor to have pupils with colds excluded from school; study absenteeism due to colds in school as a whole; check frequently during winter months.

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IV. Stimulants and Narcotics

This unit is so important that it is suggested that three one hour or six half-hour periods be devoted to it in each of the two years. Facts and scientific evidence should be given first consideration. Avoid

arousing curiosity that may lead to testing effects of stimulants and narcotics. Appeal to pupils' desire for fitness in sports, efficiency in play or work, vigorous health and high character qualities.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Uses no tea or coffee; does not use tobacco in any form; avoids the use of alcoholic beverages; avoids the use of stimulants in any form when fatigued; does not use drugs for any purpose except when prescribed by reputable physician; avoids the use of patent medicines except when prescribed by reputable physician; seeks pleasure in wholesome and healthful forms; avoids the companionship of those who use alcohol or other narcotics; obeys the law in regard to alcohol and drugs.

ATTITUDES

Appreciates personal responsibility to himself, to his family and to society for refraining from the use of alcoholic beverages and drugs; desires to avoid smoking until he has attained full growth and development; desires to maintain his own efficiency in school or work; desires to maintain his self respect and the respect of others; wishes to obey the laws of the United States; desires to use beverages that have food value during the period of growth and development rather than to use tea or coffee.

KNOWLEDGES

1. Stimulants and narcotics

a. Principal ones used

(1) Stimulants: coffee and tea.

(2) Narcotics: tobacco, alcohol and drugs.

b. Popular reasons for usage

(1) Social custom; to allay the sense of fatigue; to forget unpleasant realities; for medicinal purposes; to try new sensations; liking for the flavor; habit.

c. Tea and coffee

(1) Source

Tea,—dried tea leaf; coffee,—the coffee bean roasted.
Used as beverages.

(2) Harmful elements

Caffein and tannic acid found in both tea and coffee.

(3) Effects on the individual

Persons differ in response to caffein, largely due to differences in nervous system; powerful stimulant of the heart and nervous system; tannin— affects mucous membrane of stomach; stimulating effects undesirable

for growing boys and girls; moderate usage may not be harmful in adult life; effects of habit are not degrading.

d. Tobacco

(1) Source

Dried leaf of tobacco plant. Used for smoking, chewing and snuff.

(2) Harmful elements

Nicotine: a poison; a narcotic; habit forming; body may become accustomed to small quantities.

(3) Effects on individual

(a) Interferes with growth at age when strength and vigor are needed for development; needless diversion of bodily processes required for repairing physical or mental injuries caused by tobacco; impairs nervous stability; increases the heart rate; retards mental processes,—accuracy; irritates mucous membranes in the nose and throat causing “cigarette cough” and hoarse voice; if habit is formed causes great discomfort if smoking is not convenient.

(b) Same effects true for girls as for boys

No scientific evidence that greater harm is done.

(c) Smoking in adult life in moderation less harmful.

(4) Effects on society

(a) Lowers efficiency in school or occupation

1st Athletics and smoking.

2nd Scholarship and smoking.

(b) Financial drain—money could be used for more wholesome purposes.

(5) Current problems

(a) Scientific investigations of the effects of smoking.

(b) Popular beliefs in statements of advertisements of cigarettes.

e. Alcohol

(1) Source

Contained in wines, beer and whiskey which are manufactured from fermented fruits and grains.

(2) Usage

As a beverage; for medicinal purposes.

(3) Harmful element

Alcohol—a narcotic, tends to deaden or paralyze the nerves; not a stimulant.

(4) Effects on individual

(a) Future

1¹ Shortens life expectancy.

Studies of insurance companies.

2¹ Increases liability to death from kidney disease, pneumonia and suicide.

3¹ Increases tendency to mental illness.

Studies of statistics of patients in state hospitals.

(b) Bodily effects

1¹ Throws abnormal strain on liver and kidneys.

2¹ Injures or deadens nerve and brain cells, resulting in

a¹ Inability to control muscular action (dangers of accidents).

b¹ Lessening of restraint.

c¹ Weakening of memory, judgment, and ability to think clearly.

d¹ Loss of control of emotions.

3¹ Lowers bodily temperature

Explorers in Arctic regions forbidden use.

4¹ Increase pulse rate.

5¹ Reduces physical strength and endurance.

6¹ Creates a craving for alcohol (a habit-forming narcotic).

(5) Effects on society

(a) Earning capacity of individual diminished.

(b) Lowers efficiency in school or occupation.

(c) Responsible for much unhappiness, poverty, crime, disease.

(d) Safety hazard

Rules for motorists, railroads, air pilots, etc.

(e) Effects on future generations.

(6) Current problems

(a) Scientific investigations of the effects of alcohol.

(b) Alcohol and athletics.

(c) The Eighteenth Amendment

1¹ Why it was passed.

2¹ Responsibilities of a good citizen.

3¹ Need for cooperation.

- (d) Education of the public.
- (e) Financial aspects of the alcohol question.

f. Drugs

- (1) Sources
 - (a) Opium—from certain species of poppy.
 - (b) Morphine—a derivative of opium.
 - (c) Heroin—manufactured.
 - (d) Cocaine—from leaves of coca plant and coal-tar products.
- (2) Usage
 - (a) Medicine—used with care because of dangers of forming habit.
 - (b) By drug addicts.
- (3) Effects on individual
 - (a) Habit becomes so strong individual will do anything to satisfy his craving.
 - (b) Changes character—lose self-respect, honor, ambition. May lie, steal, or commit crime to obtain drug.
 - (c) Loss of health.
 - (d) Drain on finances.
 - (e) Difficulties in breaking the habit and curing the individual.
- (4) Social effects
 - (a) Many crimes committed by users.
 - (b) Loss of social responsibility.
 - (c) Responsible for much poverty and unhappiness in families.
- (5) Current problems
 - (a) The smuggling of narcotics into this country; drug rings.
 - (b) Hospital care of drug addicts.
 - (c) Tempting young boys and girls.
 - (d) Legislation.
 - (e) The prevalence of the patent medicine habit
 - 1¹ Harmful drugs used as ingredients.
 - 2¹ Dangers of use without prescription of a physician.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Committees report on the studies of experiments and observations on the effects of smoking and alcohol on scholarship and athletics.

2. Compare the action of food and alcohol in the body to show why alcohol should not be classed as a food.
3. Demonstrate how tea and coffee should be prepared to minimize their harmful effects.
4. Pertinent questions for discussion: Why can your father indulge in smoking in moderation without apparent harm? Why does a boy who smokes get "winded" easily in athletics? What are the arguments for and against girls' smoking?
5. Committees make a study of what national organizations are doing to control (1) the use of alcohol, (2) the use of narcotics.

TEXTBOOKS

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WHEAT and FITZPATRICK. Everyday Problems in Health. American Book Company, New York. 1933. Problem 20.

V. Physical Activity and Posture

The material on physical activity presents the physiological basis for such activity. This information should be most helpful to the teacher in the selection of the right type of exercise for various age groups.

Posture has been presented from the positive viewpoint and the emphasis has been placed upon normal rather than abnormal posture. Much can be accomplished in securing good posture through acquiring better muscle tone and by giving more attention to the "feel" of correct posture. All conditions serious enough to require corrective attention, should be referred to a physician.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Plays or works actively out of doors daily; tries to have at least two hours of physical activity daily; learns to take part in group games and contests; develops skill in one or more recreative outdoor sports (hiking, tennis, swimming, skating); plays fair; is a good loser or good winner; avoids excessive fatigue; refrains from taking part in strenuous sports or athletics during the menstrual period; continues wholesome habits in relation to selection of foods, eating habits, rest; refrains from the use of alcohol and tobacco; avoids worry, hurry or over-excitement; maintains good posture in standing, walking, sitting; develops

skill, poise and control of the body in many activities; takes corrective exercises if prescribed.

ATTITUDES

Enjoys participation in games and sports out of doors; prefers participating in recreative activities rather than being a spectator; enjoys the social contacts with others in games and sports; appreciates the need for vigorous daily exercise of the large muscle groups; walks rather than rides when distances are not too great; does not "cut" physical education classes; appreciates the values of good posture; takes pride in maintaining good carriage of the body in any activity; is persevering in improving his own physique and posture.

KNOWLEDGES

PHYSICAL ACTIVITY

1. Desire for physical activity a part of nature's plan for growth, development and the maintenance of health
 - a. Observe: feelings when compelled to sit still for any length of time in school, in church; little children told to sit still.
 - b. Observe forms of physical activity: puppies and kittens; babies; boys and girls; adults. Compare apparent amount of time each group devotes to exercise willingly, in work or play.
2. Physical activity involves the use of the bones and muscles
 - a. The bones
 - (1) Composition of bones
 - (a) Cartilage.
 - (b) Mineral and animal matter.
 - (c) Marrow.
 - (d) Periosteum.
 - (2) Joints
 - (a) Kinds.
 - (b) Uses.
 - (c) Ligaments.
 - (d) Use of sac containing fluid in some joints.
 - (3) The uses of bones
 - (a) For attachment of muscles.
 - (b) For support.
 - (c) For protection.
 - (d) For movement.
 - (4) Essentials for growth and development of bones
 - (a) Proper nourishment, especially bone-building vitamins and minerals (lime and phosphorous).

- (b) Sunshine (helps body to make its own bone-building vitamins).
- (c) Refraining from use of tobacco while bones are growing.
- (d) Non-use of alcoholic drinks.
- (e) Correction of some physical handicaps.
- (f) Correct use of bones
 - Posture in sitting, lying, standing, walking (see posture p. 120).
- (g) Proper care or correction
 - 1¹ Dislocation, sprains, strains, fractures (Discussed in detail under "Care of the Injured").
 - 2¹ Curvatures: lateral, posterior.
 - 3¹ Weak feet.

b. Kinds of muscles

- (1) Voluntary
 - (a) Include muscles of arms, legs, trunk, etc.
 - (b) *Simple* structure.
 - (c) Function.
 - 1¹ To produce movement.
 - 2¹ To support the body.
 - 3¹ To protect certain parts of the body.
 - (d) How the muscles produce action
 - 1¹ Contractility.
 - 2¹ Tendons.
 - 3¹ Arrangement in pairs.
 - 4¹ Neuro-muscular connection (simplified).
- (2) Involuntary
 - (a) Control of the heart, circulatory system, breathing, digestion.
 - (b) *Simple* structure.
 - (c) Involuntary muscles depend on exercise of the large *voluntary* muscles for strength and efficient functioning
 - 1¹ Emphasize that the heart is a muscle and can be strengthened by exercise of big-muscle groups.

3. The need for activity of the big-muscle groups

a. To improve muscle tone and strength

- (1) Relation to posture—ptosis especially.
- (2) Need for nutritious diet.
- (3) Effect of alcohol and tobacco.

b. To promote growth and development of the vital organs and systems of the body

Need for recognition and practice of this principle during the period of growth and development of boys and girls.

c. To stimulate the functioning of the vital systems of the body

Circulatory, respiratory, nervous, digestive (non-technical discussion).

d. To develop skill in control of the body in many activities.

e. To increase mental alertness through removal of fatigue products and increase of food and oxygen supply.

4. Selecting desirable types of big-muscle activity

a. Enjoyable—work or play

(1) Effect of emotional reaction on functioning of the systems of the body (non-technical).

(2) Advantages of plays, games and sports versus calisthenics.

(3) Need for wholesome emotional expression.

b. Out of doors—sunshine.

c. Companionship of others.

d. Amount needed in relation to age

The adolescent—2 hours daily.

e. Amount needed in relation to occupation.

f. The financial aspects of different forms.

g. The need for development of interest and skills in some form of recreative activity (involving big-muscle activity) which will tend to be carried on all through life.

5. Conditions limiting amount and type of physical activity

a. Heart defect—importance of discovery through health examination. Dangers of participating in vigorous athletics.

b. Tuberculosis—importance of discovery through health examination. Dangers of participating in athletics.

c. Recovery from illness.

d. Cripple.

e. Malnutrition—importance of rest.

f. Menstruation

(1) Avoid undue fatigue, work or strain.

(2) Exercise in moderation desirable.

(3) Avoid vigorous running and jumping.

g. Age of growth and development

Dangers of strenuous athletics, football, basketball in the junior high school because vital organs not fully developed. Problem of individual growth.

- h. Over-fatigue
 - (1) Fatigue products accumulate more rapidly than can be removed by the blood.
 - (2) Importance of rest.
- i. Strains and muscle soreness.

6. Corrective features of exercise

- a. Relieves constipation.
- b. Helps to prevent the accumulation of excess fatty tissue.
- c. Stimulates the appetite and improves digestion.
- d. Corrective exercises for postural defects.

POSTURE

- 1. Values of good posture
 - a. The pupils' reasons for desiring good posture
 - (1) To improve his appearance—clothes look better.
 - (2) To make a good impression—in school, social and business life. Conveys impression of energy, alertness, self-respect.
 - (3) Boys—in imitation of athletes and soldiers.
 - b. Other values
 - (1) Health: to allow space for normal growth, development and efficient functioning of the internal organs; to promote normal growth and development of bones and muscles.
 - (2) Mental: mental states reflected in posture and vice versa.
 - (3) Physical: cultivate ease, poise, grace, certain amount of relaxation, a readiness for action.
- 2. Common postural defects
Head forward, flat chest, round shoulders, hollow back, lateral curvature, relaxed abdominal walls, flat or weak feet.
- 3. Some causes of poor posture
Note: Certain of these will be discussed in greater detail under other units.
 - a. Poor nutrition: growth and development of bones, muscles and organs affected by habits and practices in relation to foods.
 - b. Mental attitudes: depression, carelessness, discouragement, etc., reflected in posture.
 - c. Habits: faulty habits of standing, sitting, lying, walking.
 - d. Lack of muscular strength.

- e. Clothing: tight fitting clothing; too much weight supported by shoulders; ill-fitting shoes, high heeled shoes. (Points of a good shoe will be discussed in greater detail under "Choice and Care of Clothing.")
- f. Carrying books, newspapers or other weights habitually on one side.
- g. Furniture
 - (1) At home: using dining room chairs, study chairs and tables of improper size and height; sleeping on high pillows.
 - (2) At school: desks too high, too low; seats too high, too low, seat too far away from desk; desk overlapping seat too far.
- h. Improper lighting: at school; at home.
- i. Physical defects: defective vision; defective hearing.
- j. Occupation.
- k. Disease or illness: rickets; tuberculosis; infantile paralysis; defective muscle or ligament tissue; prolonged illness.

4. Effects of poor posture

- a. Disturbance of functioning of digestive, respiratory, excretory, nervous systems. May result in constipation, nervousness, indigestion, headache, fatigue, lack of strength and endurance. (Present the fact that the body is capable of making adjustments to bad posture.)
- b. Mental depression.
- c. Strain on certain muscles and ligaments; over or under growth and development of certain muscles.
- d. Resistance to disease lowered.

5. Improvement of posture

- a. Removal of cause so far as possible.
- b. Improvement in habits especially while boy or girl is growing.
- c. Build strength in muscles that hold body in good posture.
- d. Maintain happy, cheerful disposition.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Prepare a discussion based on observation of the physical activity habits of animals, babies and children, and adults, noting especially (a) nature of activity, play or work; (b) attitude—enjoyment or dislike; (c) approximate amount daily.
2. Each pupil present a plan by which he can secure approximately two hours daily of big-muscle activity, i. e., walking to school,

physical education classes, athletics, work at home, sports outside of school, etc.

3. Each pupil choose a type of big-muscle recreative activity in which he would like to improve his skill during the year. If possible, try to select one that is appropriate for each season,—swimming, hiking, tennis, skating, horseback riding. Try to provide opportunity for the development of the skills involved through the physical education program. Check frequently throughout the year.
4. Study opportunities which the community provides for recreation, (a) spectator type, (b) participation type. Discuss needs.
5. Study examples of good posture: American Indian; art—especially in sculpture; soldiers.
6. Try to have the physical education teacher cooperate in a study of the posture needs of the class.
7. Adjust seats to fit individual pupils.

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VI. The Control of Infection

This is probably one of the most important units to be studied. Emphasis should be placed upon personal cleanliness and the need of immediate attention to all cuts and abrasions and the importance of immunization against infectious and communicable diseases.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Keeps skin clean; tries to keep skin free from abrasions; does not put fingers in mouth; washes hands after visiting the toilet and before eating; eats only clean food; is careful of the source of drinking water; uses only safe milk; does not eat spoiled food; avoids the use of common towel or drinking cup; uses the drinking fountain in sanitary way; uses toilet facilities in sanitary manner; avoids unsanitary toilet facilities; coughs or sneezes into handkerchief; does not expectorate (uses handkerchief); cooperates with

parents in being immunized; observes isolation or quarantine measures; avoids contact with person who has communicable disease; uses proper precautions when in contact with communicable diseases; avoids crowds during an epidemic; helps to keep flies and mosquitoes out of house; has defective teeth properly cared for; endeavors to develop general bodily vigor as an aid to resistance to disease.

ATTITUDES

Regards it as a part of one's responsibility to protect others from infection; is willing to be immunized against communicable disease for which reliable means of immunization have been discovered; is interested in the protection of food, milk and water supply; desires to share responsibility of maintaining home and school in sanitary condition; enjoys being in good health rather than ill; appreciates the importance of protecting one's self and others from infection.

KNOWLEDGES

1. The story of the conquest of disease
 - a. The prevalence of disease plagues.
 - b. The old superstitions and practices.
 - c. The invention and use of the microscope.
Story of Leeuwenhoek.
 - d. The germ theory of disease.
Contribution of Louis Pasteur.
2. Germs
 - a. Bacteria
 - (1) Kinds
 - (a) Non-pathogenic—helpful in plant and animal life
 - (b) Pathogenic bacteria
 - 1¹ Characteristics of
 - a¹ Size.
 - b¹ Single celled.
 - c¹ Shape
 - 1² Cocc—spherical.
 - 2² Bacilli—rod.
 - 3² Spirilla.
 - d¹ Reproduction
 - 1² Subdividing.
 - 2² Rapidity.
 - 3² Conditions favorable for reproduction
 - a² Heat, moisture, food.

b² Formation of spores when conditions not favorable.

e¹ Production of toxins

1² Local—inflammation, pus, etc.

2² Distributed through other parts of body through blood stream.

2¹ Diseases produced by pathogenic bacteria

Diphtheria, typhoid fever, tuberculosis, cholera, tetanus, pneumonia and meningitis.

b. Protozoa

(1) Resemble bacteria in that they cause disease.

(2) Depend on intermediary host to gain entrance to body,—insect or animal

(a) Tsetse fly—sleeping sickness.

(b) Rat and squirrel fleas—bubonic plague.

(c) Mosquito—yellow fever, malaria.

3. How germs are transmitted

a. By human beings

(1) Direct contact.

(2) Contact with articles used by infected person.

(3) Contact with body discharges of infected person.

b. By animals and insects

(1) Animals having the disease transmit it to man,—anthrax, intestinal parasites, glanders, bubonic plague.

(2) Act as intermediary host or mechanical carriers of germs.

Flies, mosquitoes, lice, rats, squirrels, tsetse fly.

c. Through the air

Exaggeration of the importance of dust as carrier of disease germs.

d. By means of droplets

(1) Mucus, saliva from infected person.

(2) Dangers in crowds.

(3) Value of sunlight.

(4) Dangers of spitting, coughing, sneezing.

e. Through food or water.

4. How germs enter the body

a. Through the skin

Skin abrasions, scratches, etc.

The importance of cleanliness and use of disinfectant.

- b. Through the mouth
 - (1) Unclean hands.
 - (2) Infected food, milk, water.
 - (3) Breathing
 - (a) Pneumonia.
 - (b) Colds.
 - (c) Tuberculosis.
- c. Mucous membranes
 - (1) By direct contact.
 - (2) By contact with infected towels, clothing, etc.
- d. Adenoids and diseased tonsils
 - (1) Relation to scarlet fever and diphtheria.
 - (2) Infection spread to other parts of body.
 - (3) Necessity for removal of diseased tonsils and adenoids.
- e. Abscessed teeth
 - (1) Infection spread to other parts of body.
 - (2) Necessity for proper care.

5. The action of germs in the body

- a. Process of getting nourishment and giving off waste.
- b. Reproduce and die.
- c. Chemical substances produced by germs harm body.
Some give off toxin or poison while living, others when they die.

Damage to body

(1) Local

- (a) Inflammation—indicated by redness, swelling, heat, pain.
- (b) Pus—in boils and abscesses.
Dangers of spreading.

(2) Extension of infection—may follow channel of body—as from throat to ear.

(3) Blood or lymph stream—carried to all parts of body.

6. The body's means of protection against infection

- a. Germicidal powers of saliva and nasal secretions.
- b. Cilia in air tubes in lungs.
- c. Hairs in nose.
- d. Tears in eyes.
- e. The work of the leucocytes.

- f. The development of antibodies.
- g. Natural immunity.
- h. Acquired immunity through having disease.

7. Destruction of germs outside of the body ; uses of

- a. Sunlight.
- b. Cold (some bacteria).
- c. Wind (drives bacteria away).
- d. Exposure to air.
- e. Heat.
- f. Chemicals.
- g. Antiseptics and germicides.
- h. Soap and water.
- i. Modern methods of disinfection
 - (1) Sun, fresh air, soap and water versus fumigation.
 - (2) State regulations in regard to disinfection in communicable disease.

8. Modern methods of controlling communicable disease

- a. Careful reporting.
- b. Quarantine.
- c. Isolation.
- d. Artificial immunity
 - (1) Toxin-antitoxin.
 - (2) Antitoxin.
 - (3) Other serums and vaccines
 - (a) Rabies, small pox, typhoid and others.
- e. Immunity tests
 - (a) The Schick.
 - (b) The Dick.
- f. Precautions during epidemics.
- g. Importance of individual cooperation.

9. Control of communicable diseases

- a. Study of gains made in the following diseases and specific measures used
 - (1) Tuberculosis (review).
 - (2) Pneumonia, influenza, colds (review).
 - (3) Scarlet fever.
 - (4) Diphtheria.
 - (5) Small pox.

b. Discussion

- (1) Relations of children's diseases to more serious sickness in later life, predisposition to morbidity.
- (2) Complications in children's diseases.
- (3) Fallacy—that children have to have them.

10. Responsibility for helping in the control of infection

- a. The individual's responsibility.
- b. The responsibility in the home.
- c. The responsibility of the school.
- d. The responsibility of the community.
- e. What the State does.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Committee obtain statistics and present report of the status of certain communicable diseases over a period of five years. Discuss measures undertaken by community to control the diseases.
2. Invite the school nurse to talk on some needed phase of communicable disease.
3. Committee learn details of any recent communicable disease in the community,—its origin, how it spread, what measures were taken to prevent the spread.
4. In the absence of a school nurse discuss what the value of a school nurse would be to the community in helping to control communicable disease.
5. Committees present brief reports on desirable practices in regard to the following as they affect the control of infection (1) the use and care of drinking fountains, (2) the use of towels in the shower room and lavatory, (3) methods of cleansing dishes in the school cafeteria.
6. Individuals prepare brief reports of the work of (1) Louis Pasteur, (2) Joseph Meister, (3) Edward Jenner, (4) Walter Reed, (5) Joseph Lister, (6) Bela Schick, (7) George F. Dick.

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BURKARD, CHAMBERS and MARONEY. Personal and Public Health. Lyons and Carnahan, New York. 1930. Chapter 14.

VII. Care of the Special Senses

Special attention should be given to the preservation of the special senses through the observance of care in their use. When impaired, emphasize the need for immediate medical attention as delay, in most cases, means added impairment and, too often, loss of vision or hearing.

THE SENSE OF VISION

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Adjusts artificial or natural light to best advantage when reading or doing close work; maintains good posture and holds reading material in correct position; refrains from reading when lying down; avoids, so far as possible, using the eyes when they are tired, strained, or when ill; rests the eyes frequently when doing close work or when reading; refrains from rubbing eyes; has skill in removing foreign particles from the eyes; avoids use of the common towel; uses only clean handkerchief on eyes; refrains from use of patent medicines or consulting quacks in case of eye troubles; protects the eyes in occupational hazards; wears glasses when prescribed by oculist; consults only reputable physician for treatment of eyes; follows advice of physician; is considerate of those who cannot see well.

ATTITUDES

Appreciates the need for personal care of the eyes; considers protection of the eyes more important than appearance when necessary to wear glasses; appreciates the need for frequent examination of the eyes by an oculist; desires to follow the advice of oculist in the care of the eyes; when oculist is not available prefers to employ the services of a competent physician.

KNOWLEDGES

1. The importance of good vision
 - a. The eyes—the medium for carrying to the brain messages of form, color, movement; one of the chief avenues of learning.
 - b. The many uses of the eyes in gaining an education; in learning to live in the world about us.
 - c. The prevalence of defective vision among school children; the resultant handicaps in education; indications of the need for conservation of vision.
 - d. Changes in living conditions which have added new hazards to the eyes
 - (1) The extensive use of printed material.
 - (2) Transportation over long distances—reading enroute.
 - (3) The use of fine machinery.
 - (4) Crowded living conditions resulting in limited or poor light.

2. The structure and *function* of the parts of the eye
 - a. The exterior parts of the eye
 - (1) The eyelids and eyelashes.
 - (2) The eyebrows.
 - (3) The lachrymal glands and duct.
 - (4) The conjunctiva.
 - (5) The muscles.
 - (6) The bony socket.
 - b. The interior parts of the eye
 - (1) The coats of the eyeball
 - (a) The sclerotic and cornea.
 - (b) The choroid.
 - (c) The retina.
 - (2) The iris and pupil.
 - (3) The ciliary muscle.
 - (4) The chrystalline lens.
 - (5) The aqueous humor.
 - (6) The vitreous humor.
 - (7) The optic nerve.
3. The process of vision
 - a. Comparison of the mechanism and functioning of a camera with the eye.
 - b. Refraction of light.
 - c. The act of accommodation to light and distance.
 - (1) Elasticity of the lens.
 - (2) Action of the ciliary muscle.
 - d. Transmission of the stimulus by the optic nerve to the brain.
 - e. Interpretation of message in brain.
4. The meaning of normal vision.
5. The need for correction of abnormalities of vision
 - a. Causes, symptoms, effects on health *and* vision, and means of correction in cases of
 - (1) Nearsightedness (myopia).
 - (2) Farsightedness (hyperopia).
 - (3) Astigmatism.
 - (4) Crossed eyes (strabismus).
 - (5) Eyestrain.
 - (6) Color blindness.

- b. Testing acuity of vision
Explanation of the use of the Snellen Eye Charts.
- 6. Protection and care of the eyes
 - a. Common disorders
 - (1) Sties.
 - (2) Granulated eyelids—simple type.
 - (3) Conjunctivitis.
 - (4) Pink eye (communicable).
 - (5) Trachoma (highly communicable).
 - (6) The effects of general ill health on vision.
 - (7) The effects of the presence of certain diseases elsewhere in the body on the health of the eyes.
 - b. Injuries
 - (1) Foreign particle in eye—methods of removing.
 - (2) Black eye—treatment for.
 - (3) Occupational injuries.
 - c. Protecting the eyes through proper use
 - (1) When reading
 - (a) Arranging good light
 - 1¹ From steady source.
 - a¹ Moving trains and cars.
 - 2¹ Of sufficient intensity.
 - 3¹ Coming over the shoulder.
 - 4¹ Avoidance of reading in strong sunlight.
 - 5¹ Avoidance of glares and shadows.
 - 6¹ Regulating artificial and natural light for reading
 - a¹ In school.
 - b¹ In the home.
 - (b) Maintaining proper posture.
 - (c) Resting the eyes frequently.
 - (d) Wearing glasses when necessary.
 - (e) Refraining from extensive reading when tired or ill.
 - (2) When sewing, drawing or when doing other fine work.
 - (3) Regulating attendance at moving pictures and choosing theaters having best equipment.
 - (4) In certain occupations
Protection from excessive heat, dust, fumes, chemicals.

- (5) In driving an automobile
Protection from glares, dust, wind.
- d. Hygienic precautions
 - (1) In washing.
 - (2) In the use of individual towel.
 - (3) In the use of own clean handkerchief.
- e. The conservation of vision
 - (1) The importance of early detection and correction of defects
 - (a) Responsibility of the home; of the school.
 - (b) The services of an oculist in contrast to those of an optician or optometrist.
 - (c) Eye clinics.
 - (2) The need for maintaining in the school, healthful conditions which affect vision
 - (a) Proper lighting
 - 1¹ Window area.
 - 2¹ Adjustment of shades.
 - (b) Proper seating in relation to light and posture.
 - (c) Correct placing of blackboard of the right type.
 - (d) Color of walls.
 - (e) Selection of textbooks
 - 1¹ Size of print.
 - 2¹ Type of paper—free from glare.
 - (3) The organization of sight saving classes.
 - (4) Selecting occupation or profession with due regard for
 - (a) The condition of the individual's eyes.
 - (b) Hazards to vision.
 - (5) Legislation in Pennsylvania regarding the education of the blind and partially sighted (School Laws. Section 1414).

SUGGESTED ACTIVITIES AND PROCEDURES

1. Pupils read and prepare brief papers on the life of Helen Keller.
2. Committees prepare reports on the relation to the conservation of vision of improvements in lighting (1) in the home, (2) in the school.
3. Study the lighting in the classroom. Discuss arrangements for removing vision hazards in relation to seating, blackboards, use of the shades, and posture.

4. Make a survey of textbooks in use as to suitability of paper and printing. Note improvement in many of the newer books.
5. Teacher give summary of vision defects among pupils in each class. Note percentage of correction. Stress the need of 100 per cent correction. Make adjustments in seating for individuals with defective vision.
6. Discuss the special service given by an oculist, optician, optometrist in case of eye disorders.
7. Committees study statistics of the prevalence of vision defects among (1) rural pupils, (2) city pupils. Suggest possible reasons for the higher percentage of defects among rural pupils. Outline suggestions for securing correction.
8. Discuss the dangers of accidents in modern times due to color blindness.
9. Individuals report (questionnaire) on present practices in regard to the use of the eyes in home study. Suggest ways for improvement. Check on improvement in habits and practices later.

TEXTBOOKS

WHEAT and FITZPATRICK. Everyday Problems in Health. American Book Company, New York. 1933. Problem 6.

GREGG and ROWELL. Health Studies—Personal Health. World Book Company, Yonkers-on-Hudson, New York. 1932. Chapter 5.

WINSLOW and HAHN. New Healthy Living, Book II. Charles E. Merrill Company, New York. 1929. Chapter 14.

ANDRESS and BROWN. Science and the Way to Health. Ginn and Company, New York. 1929. Chapter 18.

BURKARD, CHAMBERS and MARONEY. Personal and Public Health. Lyons and Carnahan, New York. 1930. Chapter 13.

THE SENSE OF HEARING

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Washes ears carefully; avoids cleaning ears with anything except wash cloth; avoids blowing nose forcibly; uses precaution to protect others from infection if ear is discharging; does not shout into another person's ear; does not strike anyone on or near the ear; protects ears when swimming; consults parents or physician when there is evidence of ear trouble.

ATTITUDES

Appreciates the value of normal hearing; appreciates the importance of proper care of the ears; is considerate of those who are hard-of-hearing or deaf.

KNOWLEDGES

1. The importance of normal hearing
 - a. In every day life
 - (1) Sense of hearing one of the chief avenues of learning.
 - (2) Appreciation of music.
 - (3) Avoidance of accidents.
 - b. In securing an education
Learning through listening to the spoken words of others ; judging people and situations by sound ; music, etc.
2. The problem of defective hearing
 - a. Percentage of hearing defects among pupils in United States ; in Pennsylvania ; in local schools.
 - b. One of the chief causes of retardation in school.
 - c. The cost of re-educating retarded pupils.
 - d. The potential seriousness of any hearing defect.
3. The structure and function of the parts of the ear
 - a. The outer ear
 - (1) The auricle.
 - (2) The canal.
 - (3) The ear drum
 - b. The middle ear
 - (1) The bones—hammer, anvil, stirrup.
 - (2) The Eustachian tube.
 - c. The inner ear
 - (1) The cochlea.
 - (2) The semi-circular canals.
 - (3) The auditory nerve.
4. The process of hearing
 - a. The collection of sound waves.
 - b. The transmission of vibrations within the ear to the auditory nerve.
 - c. The transmission of the stimulus by the auditory nerve to the hearing center in the brain.
 - d. The interpretation of the stimulus by the brain.
5. The function of the ear in maintaining equilibrium
The work of the semi-circular canals, sight and muscular sense.
6. The function of carrying sensations of sound to the nervous system
The factor of noise.

7. Causes of ear disorders and disease

a. Foreign bodies in the ear

(1) Need for skill in removing.

(2) Dangers of puncturing ear drum.

b. Spread of infection during a cold

(1) Infection through Eustachian tube to ear and mastoid.

(2) Dangers of blowing nose forcibly.

(3) Prevention of spread of infection to others.

c. Accumulation of hardened ear wax

How it should be removed.

d. Diseases which predispose to ear infection

Scarlet fever, measles, diphtheria, grippe, meningitis, sinusitis.

Importance of testing hearing upon recovery.

e. Dangers of infection while swimming.

f. Nervous disorders.

g. Diseased or enlarged tonsils.

h. Congenital deafness.

8. Preservation of normal hearing

a. Proper care in removal of foreign bodies from the ear.

b. Prevention of diseases which predispose to ear infection.

c. Care of colds.

d. Removal of adenoids and diseased tonsils.

e. Proper personal care of the ears

(1) Washing.

(2) Removing ear wax.

(3) Blowing the nose.

f. Consideration of the hearing of others

(1) Shouting in person's ear.

(2) Slapping person on ear.

g. Consulting a physician at first symptoms of ear disorder
Earache.

h. The detection and treatment of hearing disorders

(1) Methods of testing hearing

(a) Whispered speech.

(b) Tuning fork.

(c) Audiometer.

(d) Phono-audiometer.

- (2) Difficulty of determining whether hearing defect will progress or respond to treatment.
 - i. Caring for the hard-of-hearing child in school
 - (1) Seating where he can hear best.
 - (2) Favorable light to facilitate lip reading.
 - (3) Training other children to be considerate and helpful to those who are hard-of-hearing.
 - (4) Schools for the hard-of-hearing.
 - (5) Legislation (School Laws, Section 1414).
- 9. The problem of caring for the deaf
 - a. Legislation in Pennsylvania (School Laws, Section 1414).

SUGGESTED ACTIVITIES AND PROCEDURES /

Demonstrate testing hearing by one or more of the following methods, (1) whispered speech, (2) audiometer, (3) phono-audiometer.

TEXTBOOKS

WHEAT and FITZPATRICK. Everyday Problems in Health. American Book Company, New York. 1933. Problem 7.

GREGG and ROWELL. Health Studies—Personal Health. World Book Company, Yonkers-on-Hudson, New York. 1932. Chapter 5.

WINSLOW and HAHN. New Healthy Living, Book II. Charles E. Merrill Company, New York. 1929. Chapter 14.

ANDRESS and BROWN. Science and the Way to Health. Ginn and Company, New York. 1929. Chapter 18.

BURKARD, CHAMBERS and MARONEY. Personal and Public Health. Lyons and Carnahan, New York. 1930. Chapter 13.

THE SENSE OF TASTE

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Avoids the use of tobacco in any form; avoids highly spiced foods.

ATTITUDES

Enjoys the natural flavor of foods.

KNOWLEDGES

- 1. The tongue, the organ of sensations of taste
 - a. Sensations of taste
 - (1) Sweet, sour, bitter, salt.
 - (2) Substances must be dissolved.

- b. Location of sensations of taste
 - (1) Taste buds in tongue.
 - (2) Gustatory nerve.
2. Conservation of sense of taste
 - a. Keep mouth clean.
 - b. Avoid highly spiced foods.
 - c. Avoid use of tobacco.
3. Relation between sensations of taste and smell
Why it is difficult to taste when one has a cold.

TEXTBOOKS

GREGG and ROWELL. Health Studies—Personal Health. World Book Company, Yonkers-on-Hudson, New York. 1932. Chapter 5.

WINSLOW and HAHN. New Healthy Living, Book II. Charles E. Merrill Company, New York. 1929. Chapter 14.

ANDRESS and BROWN. Science and the Way to Health. Ginn and Company, New York. 1929. Chapter 18.

BURKARD, CHAMBERS and MARONEY. Personal and Public Health. Lyons and Carnahan, New York. 1930. Chapter 13.

THE SENSE OF SMELL

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Avoids putting fingers or foreign objects in the nose; blows nose carefully; takes care of nasal passages when affected with a cold; has nasal obstructions removed when necessary.

ATTITUDES

Appreciates the need for proper care of the nasal passages.

KNOWLEDGES

1. Location of the sense of smell
 - a. Beginning of respiratory tract
 - (1) The olfactory nerve.
 - (2) The nasal passages
 - (a) Nostrils.
 - (b) Hairs.
 - (c) Mucous membrane.
 - (3) Turbinate bones.
 2. Obstructions in the nasal passages
 - a. Adenoids.
 - b. Deviated septum.

3. Avoidance of unhealthy conditions
 - a. Catarrh.
 - b. Nosebleed.
4. Relation between sense of smell, taste and vision

TEXTBOOKS

GREGG and ROWELL. Health Studies—Personal Health. World Book Company, Yonkers-on-Hudson, New York. 1932. Chapter 5.

WINSLOW and HAHN. New Healthy Living, Book II. Charles E. Merrill Company, New York. 1929. Chapter 14.

ANDRESS and BROWN. Science and the Way to Health. Ginn and Company, New York. 1929. Chapter 18.

BURKARD, CHAMBERS and MARONEY. Personal and Public Health. Lyons and Carnahan, New York. 1930. Chapter 13.

VIII. Health of the Circulatory System

With the increase in circulatory diseases, more attention should be given to the factors responsible, many of which are to be found in early childhood. Call attention to the effect of exercise of various types on the heart and the seriousness of certain infectious diseases upon heart tissue and the consequent effect upon its efficiency.

EVIDENCES OF PUPIL GROWTH

HABITS OR SKILLS

Maintains good posture in sitting, standing, walking or other activity; avoids wearing tight clothing; engages in some form of vigorous physical activity daily; relieves heart strain by muscular activity when obliged to stand long periods at a time; rests at frequent intervals when participating in vigorous physical activity; has an examination of the heart by a physician before participation in athletics or swimming; if he has heart disorder takes proper precautions for protection; eats balanced diet; eats food with iron content; takes proper amount of rest daily; takes care of infected teeth and tonsils; avoids other infections; has complete convalescence after infectious disease; gets plenty of fresh air and sunshine; is learning to control emotions; if he has heart disorder, chooses vocation with due consideration to limitations.

ATTITUDES

Appreciates the value of the practice of good hygiene in maintaining the health of the circulatory system; desires to practice the habits which promote good circulation; desires to avoid straining the heart through excessive physical activity; cooperates with parents and physician in caring for self if heart disorder is present; appreciates the need for avoidance of infections; appreciates the importance of having a heart examination before participating in strenuous competition in athletics or other vigorous activities.

KNOWLEDGES

1. Common experiences which indicate the need for a strong heart, good circulation and healthy condition of the blood
 - a. Participation in athletics
 - (1) The need of a strong heart to endure the strain.
 - (2) The importance of freedom from infection.
 - (3) The need for detection of heart defects through health examination.
 - b. Other forms of exercise
Swimming, walking, climbing stairs, dancing, strenuous work.
 - c. Exposure to cold—the need for good circulation to keep one warm in cold weather.
 - d. Illness—dependence on a strong heart to withstand the strain of severe illness.
2. General plan of the circulatory system (non-technical discussion)
 - a. The blood
 - (1) Carries nutrition to the tissues.
 - (2) Takes waste products from the tissues.
 - (3) Carries oxygen to the tissues.
 - (4) Removes carbon dioxide from tissues.
 - (5) Protects the body against infection.
 - (6) Distributes glandular secretions.
 - b. The blood vessels
 - (1) Channels to carry the blood to all parts of the body.
 - (2) Serve as a medium through which interchange of substances in the blood with those in other tissues is accomplished.
 - (3) Assist in regulating bodily temperature.
 - c. The heart
A muscular organ.
3. The cell—the unit of structure in the body
 - a. Simple structure of cells.
 - b. Metabolism,—emphasize the continuance of this process all through life.
 - c. How cells reproduce.
 - d. Dependence on blood stream
 - (1) For nutrition.
 - (2) For oxygen supply.

- (3) For removal of waste products.
- (4) For protection against infection.

4. The composition of the blood

a. The red blood cells or corpuscles

- (1) Work of hemoglobin in carrying oxygen in accordance with the needs of the tissues.
 - (a) Inability of the tissues to store up supplies of oxygen.
 - (b) Futility of taking breathing exercises to increase supply of oxygen in body when there is no demand for it in the tissues.
- (2) Development of red blood corpuscles
 - (a) In red marrow of the long bones.
 - (b) Length of life of single red blood cell—(2-4 weeks).
 - (c) Breaking down in liver.

(3) Anemia

- (a) Condition denoted by
 - 1st Reduction of number of red blood cells or
 - 2nd Reduction of hemoglobin in each red cell.

(b) Effects on health

Diminishes oxygen carrying power of blood.

- (c) The importance of good hygiene in helping to correct anemia
 - 1st Foods containing iron.
 - 2nd Adequate sleep and rest.
 - 3rd Fresh air and sunshine.
- (d) The meaning of blood count.

b. The white blood cells or corpuscles

- (1) Ability to alter shape (amoeboid action).

- (2) Proportion to red blood cells.

- (3) How white corpuscles destroy germs (phagocytosis)
 - (a) Work of the leukocytes.

- (b) Importance of this germicidal power in protecting the body in case of infection, local or general.

c. Platelets

Importance in coagulation of blood.

d. The plasma of the blood

- (1) Liquid part of blood—enables it to flow to all parts of the body.

- (2) Water content—action as a solvent.

- (3) Composition of plasma
 - (a) Water.
 - (b) Gases.
 - (c) Food.
 - (d) Inorganic salts.
 - (e) Waste products.
 - (f) Protective substances.
 - (g) Hormones.

- (4) Plasma—through process of osmosis becomes part of lymph stream.

5. The organs of distribution of the blood

a. The heart

- (1) A hollow muscle

Importance of emphasizing that strength of heart muscle is developed on same principles as strength in other muscles.

- (2) Structure of the heart.

- (3) How the heart does its work.

- (4) Nervous control of heart.

- (5) The rhythm of the heart beat or cardiac cycle

- (a) Influence of muscular exercise.

- (b) Influence of emotions.

- (6) What blood pressure means

How measured.

- (7) How heart is aided in its work

- (a) By valves in veins.

- (b) By exercise.

- (c) By lungs.

- (d) By massage.

- (e) By posture.

- (8) The meaning of a "leaky heart"

The importance of prevention of infection.

b. The blood vessels

- (1) Functions of

- (a) Arteries.

- (b) Veins.

Varicose veins.

- (c) The capillaries.

- (2) Elasticity of blood vessels
 - (a) Importance in regulating bodily heat.
 - (b) What blushing is.
- (3) Effects of exercise or massage on veins and arteries.
6. How the blood circulates (limited discussion)
 - a. The pulmonary system.
 - b. The systemic system.
 - c. The portal system.
7. The work of the lymphatic system
 - a. How the plasma becomes part of the lymph fluid.
 - b. Lymph spaces.
 - c. Lymphatic vessels
 - (1) Structure of.
 - (2) Effect of contraction of muscles on flow of lymph.
 - d. The lymph glands
 - (1) Location, size, structure.
 - (2) Their functions
 - (a) Create white corpuscles.
 - (b) Protect the blood by filtering and killing germs.
 - (c) Importance of function during infection.
8. Care of the circulatory system
 - a. Avoidance of use of alcohol.
 - b. Avoidance of use of tobacco.
 - c. Need for adequate sleep and rest.
 - d. Avoidance of tight clothing.
 - e. Conserving bodily heat by proper amount of clothing.
 - f. Avoidance of infection.
 - g. Care of injured blood vessels.
 - h. Care in participation in vigorous exercise—athletics.
 - i. Influence of thought and feeling.
 - j. Improving quality of the blood by hygienic practices.
 Avoidance of quack remedies.
 - k. Protection in case of heart disorder.
 - l. Avoidance of drugs.
9. The need for prevention of circulatory diseases
 - a. Statistics showing high mortality rates from heart disease.
 - b. Other circulatory disturbances.

SUGGESTED ACTIVITIES AND PROCEDURES

1. Teacher demonstrate with one pupil pulse rate response to exercise and rest
 - a. Find normal pulse rate of pupil while standing. Repeat several times until two successive records are alike.
 - b. Have pupil run in place for fifteen seconds, bringing knees up.
 - c. Count pulse rate again immediately after the exercise.
 - d. Determine time it takes for pulse to return to normal.
See Williams, *Healthful Living*, page 313. Use this test to help determine fitness of pupil to take part in athletics in absence of more thorough examination.
(Caution: Do not attempt to interpret findings or arouse morbid interest on part of boys and girls).
2. Study circulation in foot of frog with use of microscope.
3. Have pupils examine the general structure of the heart of an animal secured from the butcher shop or home.

TEXTBOOKS

WHEAT and FITZPATRICK. *Everyday Problems in Health*. American Book Company, New York. 1933. Problem 17.

GREGG and ROWELL. *Health Studies—Personal Health*. World Book Company, Yonkers-on-Hudson, New York. 1932. Chapter 10.

WINSLOW and HAHN. *New Healthy Living*, Book II. Charles E. Merrill Company, New York. 1929. Chapter 8.

BURKHARD, CHAMBERS and MARONEY. *Personal and Public Health*. Lyons and Carnahan, New York. 1930. Chapter 8.

PHYSICAL EDUCATION**PURPOSE**

From the viewpoint of pupil needs, physical education is essential regardless of facilities provided. It is recognized, however, that many schools are handicapped in developing an acceptable program by certain factors, chief among which are the following:

Inadequate facilities, indoors or out of doors, for physical education.

Limited equipment and supplies.

Untrained classroom teachers in charge of the program.

These conditions exist in many schools and it is necessary to make adjustments to provide a program that will meet the needs of the pupils as nearly as possible.

PHYSICAL EDUCATION DEFINED

Physical education is that phase of education concerned with rational motor activity and with the functioning of large muscle groups as a means of aiding in the growth and development of the child, and the physical and social efficiency of the adult, by developing the mind, the character and the structure and function of the body.

AIMS OF PHYSICAL EDUCATION

1. The improvement of physical efficiency.
2. The promotion of health and development of organic vigor which is the basis of vitality.
3. The development of such qualities as leadership, self-control, courage, alertness, loyalty, self-sacrifice, courtesy, and quickness of perception and of action.
4. The securing and maintenance of good posture through emphasis on correct standing, sitting and walking habits.
5. The development of a healthful interest in physical activity as a means of finding pleasure in leisure time through actual participation in the various fields of physical activity.

ORGANIZATION AND ADMINISTRATION

1. Facilities

a. The playground

The playground should be located adjacent to or near the building to permit better supervision and allowance for its use without great loss of time. It should be sufficiently large to permit a definite section to be assigned to each grade. Space should be allotted for the playing of such games as baseball, volley ball, basketball, soccer and track and field activities by both boys and girls as well as for the less active games.

b. The classroom

In most elementary schools, the classroom is the only room available for indoor physical education activities. Movable seats are desirable because they can be moved back against the walls, thus allowing for a greater variety of activities. This is particularly advisable for winter use when the playground is not in condition for outdoor activities.

Attention should be given to providing proper ventilation during physical education periods.

c. The corridor

The corridor space in some buildings can be used to advantage for rhythmical activities and some games.

d. The playroom

Some schools have a room which can be used for physical education. This may be an extra classroom or a basement room

which is properly floored, lighted and ventilated. Where this condition exists, the playroom should be available at certain times to all grades.

e. The gymnasium.

Many new elementary schools are being provided with gymnasium-auditoriums. Schools with such facilities will be able to offer a wider range of activities than schools handicapped by lack of indoor space.

Cooperation by principals, teachers, pupils and janitors is essential in order to keep all facilities in a sanitary condition.

2. The teacher

The classroom teacher is, in most instances, responsible for the physical education activities of her pupils. If the activities are to be worthwhile, the teacher must be whole-heartedly in sympathy with them. Contact with her children through the physical education program gives the teacher an opportunity to secure an insight into the character of her children which she can get in no other way. The physical education period with its varied activities provides a great opportunity for social training and social adjustment. Children live largely in an active world and the teacher who cannot play with them cannot speak the language in which they are thinking and acting.

3. Pupil leaders

The use of pupil leaders provides an excellent opportunity for one of the most important objectives in educational training in leadership. Leaders should be selected on the basis of ability, attitude, influence with other pupils, and personality. It is well to change leaders on occasion in order to give a greater number of pupils an opportunity for this honor and training.

The use of pupil leaders, however, does not relieve the teacher of her responsibility but gives her a greater opportunity for supervision of all activities and for individual attention when necessary. She should be helpful, enthusiastic and encouraging.

Leaders may serve as game instructors, judges, score keepers, reporters and health officers, taking care of temperature and ventilation and assuming certain responsibility for enforcing and maintaining cleanliness and tidiness of buildings.

4. Time allotment

Physical education should have a regular place in the daily program and a special time reserved for it, just as is done in other subjects.

A minimum of ninety (90) minutes a week should be allotted to each of the first eight grades in addition to the one hundred and fifty (150) minutes per week for recess periods.

5. Directed recess periods

The purpose of the recess periods in the middle of the forenoon and afternoon is to afford relaxation from the inactivity of the classroom by providing opportunity for physical exercise in the open air. Pupils are entitled to this time.

Recesses, weather permitting, should always be out of doors. The activities at this time should be so organized and directed that every child may have an opportunity for safe, vigorous play suitable to his age and strength. Where playground apparatus is available, it should be regularly used under proper supervision and direction.

The recess period is primarily designed for play—a period of relief from desk work and conscious mental effort. But a recess period which simply turns pupils out into the schoolyard, does not begin to accomplish the desired results for the majority of the pupils. The more aggressive children will monopolize the apparatus and the most desirable play space, while the more timid and less robust children, those who need the physical activity most, will stand about in groups, trying to keep out of the way, or hopelessly waiting for the turn which too often never comes. Many teachers and principals have deplored this condition, but felt helpless to remedy it. The method, sometimes tried, of having the teachers in the yard or playground for *so-called supervision*, does not help very much. This supervision usually amounts to little more than policing. It does reduce the liability to accident, but does not appreciably help to secure activity for all. The only satisfactory solution is the thorough organization of the recess period.

CLASSIFICATION OF ACTIVITIES

1. Games

Games provide plenty of exercise and great enjoyment and furnish a necessary outlet for the child's energies. There are many types of games—athletic, tag, goal, bean bag, ball and so forth. In the outline of games for the various grades, examples of all of the above types have been included. Games involving an "it" or "tag" element have a particular appeal for the elementary school child. They are simple in their organization, are quickly learned and because of this, a greater variety and number may be taught. As the child grows older, these games are supplemented by the simple team games, which, in turn, are supplemented by competitive athletic games which are more highly organized.

2. Individual athletic events

These are generally elements of games which can be performed without dependence upon other players. They include running, jumping, chinning, throwing, kicking, and other similar types of activity.

3. Story plays

The younger pupils are happiest when pretending to be their elders, animals, or objects and imitating their activities. The story plays have a more or less universal appeal if the activities are natural and spontaneous. They afford a splendid opportunity for the interpretation and understanding of stories read by the teacher. It is well to suit the story plays to the season insofar as possible as they will then make a greater appeal to the children.

In the teaching of story plays, several points should be kept in mind:

1. No emphasis should be laid on the uniformity of the work.
2. No formal commands should be employed.
3. A circle formation is desirable both in the schoolroom and on the playground.
4. All movements should be fairly vigorous.
5. The whole body should be brought into the movements if possible.
6. Encourage the children to make suggestions and to work out imitations in their own way.
7. Try to interest *all* the children in the activities.

4. Mimetic exercises

Mimetic exercises are imitative movements of well-known activities without the usual equipment used in these activities. They are very closely related to story plays but are more formal and accurate in their movements. They are selected for the purpose of developing powers of quickness, alertness, observation and individuality, as well as for recreational purposes. They are well suited to classroom work and may be used to teach the form of different athletic events to large numbers of pupils at the same time. They may be done to music if desired. The field of activities which may be imitated is practically limitless.

5. Relay races

Relay races are intensely popular with most groups, thus making it necessary for teachers to be sure that they are successfully conducted. The relay should be carefully explained and then illustrated by a group of two or three pupils. The starting and finishing lines must be understood and pupils should not be allowed to start ahead of an agreed starting time and line. Pupils seated at desks during schoolroom relays must be careful not to obstruct the passage of the runner. Teachers should be careful to keep the length of the relay within reason. Extreme care should be taken to name the correct winner. Because of their popularity, pupils will call for relays frequently, and the teacher should build up a program which involves the use of other types of activities, thus, avoiding the too frequent use of relay races.

6. Rhythrical activities

This field of activity includes singing games, folk dances or games, gymnastic dancing, natural dancing and social dancing. These activities give desirable training in self-control, poise and posture, in addition to providing exercise and recreation. The singing games and folk dances, which are popular with elementary pupils, have grown out of the feeling, thought and customs of people in many countries for many generations. Boys and girls alike should take part in the rhythmical activities.

7. Stunts and contests

Stunts and contests are self-testing activities which provide an opportunity for every boy and girl to match skills; they give satisfaction and a sense of accomplishment, which fosters self-confidence, poise, motor control, and initiative. They are easily taught and many can be engaged in by the pupils during home play periods. They lend themselves especially well to group organization and give opportunity for student leadership.

For safety, certain facilities are desirable—a turf plot, saw-dust filled jumping pit, tumbling mats, straw mats or other suitable materials should be provided. Stunts should not be tried on hard surfaces.

GENERAL SUGGESTIONS TO TEACHERS

1. The teacher should always have the pupils outdoors, weather conditions and school organization permitting.
2. Coats and sweaters should be removed when the period is held in the classroom.
3. The teacher should develop a sympathetic understanding of the pupils.
4. Do not hesitate to participate in the play of children. Such participation tends to gain the respect and affection of the children.
5. The child who returns to school following an absence due to illness should be guarded from over-exertion.
6. When officiating, make quick, accurate and just decisions.
7. Use pupil leaders whenever possible.
8. Make all explanations as simple and concise as possible.
9. Save indoor activities for use on days of inclement weather.
10. Seasonal activities should be selected when possible.
11. Let the activity be its own reward.
12. Guide children in settling disputes and matters of discipline for themselves.
13. Preserve the play spirit in all activities.

EQUIPMENT

The list below indicates types of equipment desirable for physical education activities in elementary schools. The equipment should be available to teachers at all times.

Bags, Bean

Balls, Basket

Balls, Health (12"—15")

Balls, Playground Baseball (9"—12")

Balls, Soccer

- Balls, Volley
- Bats, Playground Baseball
- Clubs, Indian (for games)
- Nets, Volley Ball
- Quoits
- Ropes, Jumping (7'-16')

The use of a piano or victrola is desirable for the teaching of rhythmical activities. Records for the victrola are available for many of the activities.

REFERENCE BOOKS

Four books have been selected in which a description of all the suggested activities may be found. They are as follows:

1. NEILSON, N. P., and VAN HAGEN, WINIFRED. Physical Education for Elementary Schools, A. S. Barnes and Company, New York. 1932.
2. Bulletin 12, Course of Study in Physical Education for Grades I-VIII, Department of Public Instruction, Commonwealth of Pennsylvania, Harrisburg, Pennsylvania. 1928.
3. BANCROFT, JESSIE H. Games for the Playground, Home, School and Gymnasium. Macmillan Company, New York. 1923.
4. FORBUSH, W. B., and ALLEN, H. R. The Book of Games. John C. Winston Company, Philadelphia. 1927.

SYMBOLS USED IN THE SECTION ON PHYSICAL ACTIVITIES

In the preceding list of reference books on physical education, each book is given a number. In the list of Physical Activities beginning on page 149, each activity is followed by a book number and a page number.

It will be noted that each book has been given a number. Following the number which refers to the book, is one which indicates the page number.

Example. Crossing the Brook—1-90, 3-74, 4-15. 1-90 indicates that this game may be found on page 90 in Neilson and Van Hagen, on page 74 in Bancroft and on page 15 in Forbush and Allen.

Immediately following the titles of games, relays and story plays, certain letters will be found. If they follow titles of games or relays, they are to be interpreted as follows:

- S—Schoolroom
- G—Gymnasium or Play Room
- P—Playground or Athletic Field

If used after story plays, they refer to seasons, as follows:

- F—Fall
- W—Winter
- Sp—Spring
- S—Summer

Titles and numbers following rhythmical activities indicate that either Columbia or Victor records are available.

PHYSICAL ACTIVITIES FOR GRADE ONE

GAMES

Advancing Statues S-G-P	2-240, 4-1
Birds S-G-P	2-225
Brownies and Fairies G-P	1-89
Cat and Mice S	1-89, 2-225, 3-59, 4-12
Chase the Animal Around the Circle G-P	1-89
Crossing the Brook G-P	1-90, 3-74, 4-15
Do This, Do That S-G-P	3-75, 4-18
Drop the Handkerchief, G-P	2-228, 3-80, 4-16
Huckle, Buckle, Beanstalk S	3-109, 4-223
Huntsman S	1-90, 4-24
I Say "Stoop" S-G-P	2-28, 3-113, 4-109
Jack Be Nimble S-G-P	1-90, 3-114
Leader and Class S-G-P	1-90, 2-228, 4-18
Magic Carpet G-P	1-91, 4-141
Pussy Wants a Corner S-G-P	2-227, 3-163, 4-28
Railroad Train S-G-P	1-91, 3-164
Ringmaster S	3-167, 4-108
Run, Rabbit, Run S	1-91
Skip Tag G-P	1-91, 2-225
Slap Jack S-G-P	2-227, 3-178, 4-16
Squat Tag G-P	2-230, 3-190, 4-34
Squirrel and Nuts S	2-225, 3-184, 4-32
Squirrels in Trees G-P	1-91, 2-225, 3-185, 4-30
Stop and Start G-P	1-92
What to Play S-G-P	1-92
Who's Afraid of the Tiger G-P	2-227, 4-158

MIMETIC EXERCISES

Animal Imitations	1-92
Building Stone Wall	1-93
Ferry Boat	1-93
Follow the Leader	1-93
Scooping Sand	1-93
Shoveling Snow	2-62

STORY PLAYS

A Day in the Country S	1-68, 2-84
Aeroplanes S	1-77
At the Beach S	1-79
At the Seashore S	1-78
Autumn in the Woods F	1-69, 2-77
Betsy Ross Making the Flag W	1-76
Birds Learning to Fly Sp	1-77, 2-84
Brownies F	1-70
Building a House S	1-76
Christmas Toys W	1-75

Christmas Trees W	1-75, 2-79
Circus S	1-69
Clever Wood Mice F	1-72
Coming to this Country S	1-71
Cowboys S	1-73
Cutting the Grass S	1-70, 2-85
Dear Old Santa W	1-74
Firemen F	1-72
Gathering Flowers Sp	1-78, 2-81
Gathering Wood for Fire F	1-76, 2-78
Hallowe'en F	1-70, 2-76
How Animals Get Ready for Winter F	1-71
March Winds W	1-76
May Queen Sp	1-79
Nutting F	1-70, 2-77
Playing the Wind Sp	1-78
Play in the Snow W	1-73, 2-78
Preparing for Thanksgiving F	1-71
Skating W	1-74, 2-79
Snow Fort W	1-74, 2-78
The Playground S	1-68
The Sleeping Princess Sp	1-68
The Toy Shop W	1-77
Washington's Cherry Tree W	1-75

RHYTHMICAL ACTIVITIES

Record
Numbers

Dance of Greeting	2-147	
Did You Ever See a Lassie ?	1-81, 2-152, 3-261	Col. 10008D Vic. 21618
(American)	4-43	
French Doll	1-84	
Hickory Dickory Dock	2-150	Col. 10006D Vic. 22760
How D'ye Do, My Partner (Swedish)	1-85, 2-145	Vic. 21685
Itiskit, Itasket	2-144, 3-268, 4-53	
Looby Loo (English)	1-86, 2-157, 3-280, 4-66	Col. 10008D Vic. 20214
Mulberry Bush	2-163, 3-283, 4-50	Vic. 20806
Round and Round the Village	1-87, 2-158, 3-290, 4-82	
Shifty Shadow	2-149	
Shoemaker's Dance	1-88, 2-148	Col. A3038 Vic. 20450
Snail	3-293	Vic. 22759
The Camel	1-80	
Ducks	1-82	
The Farmer in the Dell (American)	1-83, 2-143, 3-265, 4-46	Vic. 21618
Washing the Clothes	2-146	

PHYSICAL ACTIVITIES FOR GRADE TWO

GAMES

Back to Back G-P	1-95, 4-34
Bean Bag Toss S-G-P	2-230, 3-305
Bird Catcher G-P	1-95, 2-229, 3-52, 4-3
Cat and Rat S-G-P	1-95, 2-234, 3-60, 4-12
Catch Ball G-P	2-231
Changing Seats S	1-96, 3-63
Double Circle G-P	1-96
Eenie, Weenie, Coxie, Wanie G-P	4-35
Flowers and the Wind G-P	1-96, 3-87, 4-18
Fox and Squirrels G-P	2-229, 3-93, 4-98
Good Morning G-P	2-229, 3-99, 4-7
Group Racing G-P	2-229
Hound and Rabbits G-P	1-96, 3-107, 4-30
Line Ball S	3-284
Midnight G-P	1-97, 2-233, 3-133, 4-150
Moving Day S	1-97, 4-29
Puss in a Circle S-G-P	1-97, 3-164, 4-21
Ring Call Ball G-P	1-97, 2-231, 3-338, 4-9
Run for your Supper G-P	2-230
Spider and Flies G-P	1-98
Tommy Tidler's Ground G-P	3-197, 4-160
Water Sprite G-P	3-203, 4-205

MIMETIC EXERCISES

Bell Ringing	1-121
Climbing Ladders	1-121
Elevator	1-121
Rooster	1-121
Snowballing	1-121, 2-62
Toad Jump	1-121
Weather Vane	1-121
Wheelbarrow	2-66

STORY PLAYS

A Day at the Playground S	1-112
Automobiles F	1-110, 2-77
Baseball Game S	2-82
Building an Eskimo Home W	1-114
Cleaning House Sp	1-118, 2-83
Coasting with New Sled W	1-115, 2-79
Countries F	1-110
Farm Chores S	1-111
Flower Play Sp	1-118
Gathering Autumn Leaves F	2-77
George Washington W	1-116
Going Fishing Sp	2-83
Hanging Up Clothes Sp	2-85
Ice Play W	1-116
Indians S	1-109

In the Barn S	1-110
Life in Other Countries F	1-119
Lumbering W	1-117
Making a Garden Sp	1-119, 2-80
Maple Sugar Sp	1-111
Mining Coal W	1-115
Modes of Travel F	1-113
Motorcycle F	1-119
Moving Day Sp	1-117
Newsboy F	1-113
Picking Apples F	2-76
Picking Cherries S	2-82
Pilgrims F	1-112
Policeman F	1-120
Repairing Roads Sp	1-116
Santa Claus' Visit W	1-115
Spring Play Sp	1-118
Swimming S	1-109, 2-85
Thanksgiving F	1-112
The Eskimos W	1-114
The Fire F	1-109
The Toy's Jubilee W	1-111
The Wind Sp	1-117
The Windmills at the Park Sp	1-119
Trees in a Storm W	2-83
Valentine Day W	2-80
Washing Clothes Sp	1-114

RHYTHMICAL ACTIVITIES

		Record Numbers
A Hunting We Will Go (English)	1-100	Vic. 22356
Chimes of Dunkirk (Belgian)	1-98, 2-160	Col. A3061
Dance of Greeting (Danish)	1-99, 2-147	Vic. 21618
I See You (Swedish)	2-161, 4-52	Col. A3039
Let the Feet Go Tramp	3-276	Vic. 20432
London Bridge (English)	3-278, 4-63	Col. A3041
Marusaki	1-101, 2-167	Vic. 20432
Oats, Peas, Beans (English)	1-102, 21155, 3-287, 4-75	Col. 10008D
Old Roger Is Dead	1-103	Vic. 20214
Popcorn Magic	1-104	
Pussy Cat, Pussy Cat	1-105	Vic. 22759
Ride a Cock Horse	2-164	Vic. 22760
Sleeping Beauty	1-106	
Soldier Boy (American)	2-151	Vic. 20806
The King of France	2-153, 3-273, 4-60	Vic. 20806
The Muffin Man	2-153, 3-282, 4-70	Vic. 20744
The Swing	1-107	

RELAY RACES

Aisle Pass Relay S	1-120
Automobile Relay Race G-P	1-120, 2-232, 3-48, 4-167
Bean Bag Passing Relay S	2-231
Bean Bag Sideward Relay S	2-230
Group Relay S	2-229

PHYSICAL ACTIVITIES FOR GRADE THREE**GAMES**

Ball Passing G-P	1-123
Ball Puss G-P	1-123, 3-327
Bean Bag Box S-G-P	1-123, 3-305, 4-95
Bean Bag Circle Toss G-P	1-123, 2-232, 3-306, 4-38
Black and White G-P	2-237, 3-52, 4-120
Bull in the Ring G-P	3-56, 4-119
Dodge Ball G-P	1-146, 2-245, 3-363, 4-130
Double Tag G-P	1-124
Exchange Tag S	1-124, 2-234, 3-84
Fire Engine G-P	1-124
Floor Tag S-G-P	1-124
Flying Dutchman G-P	1-124
Follow the Leader S-G-P	1-125, 2-234, 3-89, 4-18
Forest Lookout G-P	1-125
Hill Dill G-P	3-105, 4-159
Lame Fox and Chickens G-P	3-124, 4-19
Statues G-P	1-125, 4-1
Stoop Tag G-P	1-126
The Ocean is Stormy G-P	1-125
The Night Before Christmas S-G-P	2-232
Three Around G-P	1-125

MIMETIC EXERCISES

Bicycling	1-145
Bouncing Balls	1-145
Cowboys Throwing Lasso	1-145
Furling Sail	1-145
Seesaw	1-145
Skating	1-146
Striking the Anvil	1-146

RHYTHMICAL ACTIVITIES

Carrousel (Swedish)	1-128	Record Numbers
Draw a Bucket of Water	3-263, 4-45	Col. A3036
Hot Cross Buns	1-129	Vic. 20432
Hunting	3-267, 4-40	
Indian War Dance	1-130, 2-171	Col. A3078
Jolly Is the Miller	1-132, 2-159, 4-59	Vic. 20214
Kitty White	3-274	

Little Bo-Peep	1-133	Col. 1006D
Nixie Polka	1-134, 2-170	
Old Dan Tucker I	1-135	Vic. 20447
Pease Porridge Hot	1-127	Vic. 20621
Sally Waters	4-85	
Sandal Polka	1-136	
Taffy Was a Welchman	1-137	
Ten Little Indians	1-138	Vic. 22759
The Man in the Moon	2-169	
The Merry Go-Round	1-139	
Yankee Doodle	1-149	Vic. 22760

RELAY RACES

All Up Relay S	2-235, 4-165
Around the Row Relay S	1-140, 3-71
Bean Bag Passing Relay S-G-P	1-140, 3-310
Bean Bag Ring Throw S-G-P	1-140
Blackboard Relay S	2-232
Cross Over Relay G-P	1-141
Eraser Relay S	1-141, 2-230
Relay Race G-P	1-141, 2-231
Single Relay G-P	2-231
Stoop and Stretch S-G-P	1-142
Tag the Wall Relay S	3-192, 4-174
Telegram Relay S-G-P	2-234

STUNTS AND CONTESTS

Backward Roll	1-144, 3-246
Balancing Exercises	2-88
Bean Bag Target Throw	2-88
Bear Dance	1-145
Cart Wheel	1-144
Chinese Get Up	1-145, 4-254
Crab Walk	1-142
Dog Collar	1-145
Dog Run	1-143
Duck Walk	1-142
Forward Roll	1-143
Frog Hand Stand	1-153 and 143
Gallop	1-143
Human Rocker	1-142
Measuring Worm	1-144
Rabbit Hop	1-142, 3-251
Step Hop	1-143

PHYSICAL ACTIVITIES FOR GRADE FOUR

GAMES

Barley Break P	1-166, 3-48, 4-113
Bat Ball G-P	1-151
Bears and Cattle G-P	1-167, 4-160
Beetle Goes Round G-P	2-240, 3-206, 4-205
Circle Dodge Ball G-P	3-364, 4-38

Come Along G-P	1-168, 4-16
Day and Night G-P	4-294
Ducks Fly S	2-240
End Ball P	1-153
Last One Out S	1-169, 4-148
Long Ball G-P	1-155
One Old Cat P	1-157
Oyster Shell G-P	1-169, 3-143
Pin Soccer P	1-157
Playground Baseball G-P	1-158, 4-143
Poison Seat S	1-170, 3-148
Prisoners' Ball P	1-161
Schoolroom Tag S	1-126, 2-237, 3-172
Simon Says S-G-P	1-170, 2-234, 3-235, 4-108
Three Deep G-P	2-238, 3-196, 4-200
The Boiler Burst S	1-167, 4-211
Two Deep G-P	1-171, 4-199
Work Up P	1-163

MIMETIC EXERCISES

Archery	1-191, 2-56
Fire Cracker	1-191
Jack in the Box	1-191
Jack Knife Bend	1-191
Jumping Rope	1-191
Picking Cherries	2-62
Sewing Machine	1-191
Skating	1-191

RHYTHMICAL ACTIVITIES

		Record Numbers
Broom Dance	1-172	Vic. 20448
Children's Polka	1-173, 2-168	Col. A3052
		Vic. 20432
Coming Through the Rye	1-174, 2-216	
Dutch Couple Dance	1-176	Vic. 22761
Hansel and Gretal (German)	1-178	Vic. 21620
Indian Hunters (Boys)	1-180	
Jump Jim Crow	1-182	
Klappdans (Swedish)	2-173	Col. A3036
		Vic. 20450
Minuet I	1-183	Vic. 17087
Rovenacka (Bohemian)	1-186, 2-175	
Vineyard Frolic	2-177	

RELAY RACES

Arch Ball Relay G-P	1-163, 2-237, 3-321, 4-167
Attention Relay S-G-P	1-164, 2-245
Carry and Fetch Relay S-G-P	1-164, 3-309, 4-168
Circle Relay G-P	3-70
Desk Relay S	3-309
Farmer and the Crow Relay G-P	1-164
Flag Relay S	2-241

Home Base Bean Bag Relay S	1-165, 2-283
Hopping Relay G-P	1-165, 2-240, 3-106
Hurley Burley Bean Bag Re- lay S	1-165, 2-241
Soccer Relay G-P	1-166
Stunt Relay G-P	1-166
Walking Relay G-P	1-166, 4-174

STUNTS AND CONTESTS

Back Spring	1-189
Centipede (Boys)	1-190
Clown Tricks	1-188
Coffee Grinder	1-188
Double Forward Roll	1-188
Frog Hop	1-187
Head Stand	1-189
Knee Dip	1-188
Leap Frog and Forward Roll	1-190
Minuet Bow	1-188
Stooping Stretch	1-187

PHYSICAL ACTIVITIES FOR GRADE FIVE**GAMES**

Ante Over P	1-230, 4-142
Basketball Toss Up G	1-193
Bean Bag Target Toss G-P	1-231, 4-93
Captain Ball I G-P	1-193, 3-339
Catch of Fish G-P	1-232, 3-61
Center Catch Touch Ball G-P	1-231, 2-256, 3-355
Center Stride Ball G-P	1-231
Circle Kick Ball G-P	1-231
Circle Soccer G-P	1-194
Corner Kick Ball P	3-359
Feather Ball G-P	1-195, 4-221
Hand Ball G-P	1-196, 3-379
Hook On G-P	1-232
Indian Club Guard G-P	1-232
Last Man S	3-126, 4-148
Newcomb G-P	4-151
Pass and Change G-P	1-233
Progressive Dodge Ball P	1-198, 2-253, 3-366
Rotation Soccer G-P	1-199
Six Hole Basketball G-P	1-200
Shinny P	1-201, 4-185
Soccer Keep Away P	1-201
Square Soccer G-P	1-202
Triple Change G-P	3-200

MIMETIC EXERCISES

Chopping Wood	1-234, 2-59
Cross-cut Sawing	1-234, 2-65
Pumping Up Tire	1-235, 2-66

Scythe Swinging	1-235, 2-62	
Signalling	1-235	
Standing Broad Jump	1-235	
Thread and Needle	1-235	
RHYTHMICAL ACTIVITIES		Record Numbers
Bleking (Swedish)	1-218, 2-179	Col. A3037 Vic. 20989
Cschbogar (Hungarian)	1-220	Vic. 20992
Finnish Reel	1-221, 2-182	Col. A3062
How Do You Do?	2-183	
Nuts in May	3-285, 4-73	
Pop Goes the Weasel II	1-222, 2-180, 4-79	Col. A3078 Vic. 20151
Practice Polka	1-222	
Reap the Flax	2-184	Col. A3001
Ritsch, Ratsch	1-224	
The Land of Cotton	1-222	Vic. 20166
Vanity Schottische	2-186	
Virginia Reel (Coverly)	1-225	Col. 50018D Col. 33048F Vic. 20447
RELAY RACES		
All-up Indian Club Relay S-G-P	1-214	
Blackboard Relay S	1-215, 2-232, 3-53	
Bull Frog Relay S-G-P	1-215	
Kangaroo Relay G-P	1-215	
Over and Under Relay G-P	1-216, 2-249, 4-172	
Pass and Squat Relay S-G-P	1-216	
Rescue Relay G-P	1-216	
Shuttle Relay G-P	1-217, 2-250, 3-173, 4-174	
Stride Ball Relay G-P	1-217, 2-249, 4-174	
Toss, Run and Catch Relay G-P	1-217	
STUNTS AND CONTESTS		
Horizontal to Perpendicular	1-229	
Indian Wrestle	1-230, 2-88, 3-246, 4-260	
Jump the Stick	1-230	
Seat Crawl	1-229	
Toe Wrestle	2-88, 3-246	
Turk Stand	1-228	
Wand and Toe Wrestle	3-247	
Wooden Man	1-229	
INDIVIDUAL ATHLETIC EVENTS		
Balancing Test	1-202, 2-267	
Baseball Batting for Accuracy	1-203	
Baseball Fly Catching	1-203	
Baseball Throw and Catch	1-203	
Baseball Throw for Accuracy	1-204	
Base Running	1-204	
Basketball Foul Throw	1-205	

Basketball Pass for Accuracy	1-205
Basketball Throw for Distance	1-205, 2-267
Basketball Throw for Goal	1-206, 2-266
Eskimo Race	1-206
Half Lever and Toes to Bar	1-207
Heel Run Race	1-207
Hobble Race	1-207
Jump and Reach	1-207
Leg Lifts	1-208
Mass Running	1-208
Potato Race	1-208, 2-266
Pull Up	1-209
Push Up	1-209
Run—Girls' 40 yard	1-209, 2-276
Run—Boys' 50 yard	1-209, 2-276
Running Broad Jump (Boys)	1-210, 2-281
Run and Catch	1-211, 2-267
Running Double Broad Jump (Boys)	1-212
Running High Jump (Boys)	1-212, 2-282
Sit-Up	1-212
Soccer Dribble	1-213
Soccer Kick for Goal	1-213
Swimming	1-214

PHYSICAL ACTIVITIES FOR GRADE SIX

GAMES

Ball Stand G-P	1-268, 3-328, 4-10
Bowl Club Ball P	1-237, 3-386
Bowling G-P	1-268, 3-386
Circle Strike P	1-237
Club Snatch G-P	1-268, 3-72
Corner Ball P	2-256, 3-359, 4-125
Duck on the Rock P	1-269, 2-248, 3-81, 4-133
Field Ball P	1-238
Hit or Out P	1-242
Last Couple Out G-P	1-270, 3-325, 4-26
Net Ball G-P	1-243
Paddle Tennis P	1-243
Pin Basketball G-P	1-244
Prisoners' Base I-P	1-287 and 271, 3-157, 4-162
Punt Back P	1-245
Simplified Soccer P	1-245
Two Old Cat P	1-247, 4-154

MIMETIC EXERCISES

Baseball Batting	1-271
Diving	2-64
Jump and Clap	1-271
Locomotive	1-271
Pulling Up Anchor	1-271

Screw Driver	1-272	
Steam Boat	1-272, 2-58	
Teamster Warming Up	1-272	
		Record Numbers
RHYTHMICAL ACTIVITIES		
Ace of Diamonds	1-258, 2-176	Col. A3001
Captain Jinks	1-260, 2-174	Vic. 20989
Gustaf's Skoal	1-261, 2-165	Vic. 20639
Hopping Dance (German)	2-192	Col. A3046
Little Man in a Fix (Finnish)	1-262	Vic. 20988
Lottie Is Dead (Swedish)	1-263	Col. A3041
Norwegian Mountain March	1-264, 2-189	Vic. 20151
Polly-Wolly-Doodle	1-264	Vic. 21619
Ribbon Dance (English)	2-198	Col. 556D
Sicilian Circle (American)	1-266	Vic. 20639
Swedish Quadrille	2-200	
RELAY RACES		
Cap Transfer Relay G-P	1-251	
Double Circle Pass Relay G-P	1-252	
In and Out Relay G-P	1-252, 2-253	
Indian Club Relay S-G-P	3-112	
Jumping Relay S-G-P	3-117	
Odd and Even Relay S-G-P	1-252	
Pursuit Race G-P	2-251	
Sideward Pass Relay S	1-253	
Skip Rope Relay G-P	1-253	
Zig Zag Bounce Ball Relay G-P	1-253	
STUNTS AND CONTESTS		
Ankle Throw	1-254	
Basketball Goal Throwing	2-88	
Boundary Tug	3-246	
Chair Creeper	9-174	
Cock Fight	2-88, 3-346, 4-255	
Elephant Walk	1-256	
Hand Wrestle	1-257, 2-88, 3-245	
Heel and Toe Spring	1-254	
Human Fly	1-256	
Knee Spring	1-257	
Sack of Wheat	1-257	
Standing High Kick	1-256	
Triple Roll	1-257	
INDIVIDUAL ATHLETIC EVENTS		
Alternate Hop Race	1-248	
Hand Traveling Events	1-248	
Heel Grasp Race	1-249	
Run—Boys' 60 yard	1-249, 2-276	

Shuttle Broad Jump	1-249
Skipping Race	1-250
Soccer Dribble and Kick for Goal	1-250
Soccer Kick for Distance	1-250
Standing Broad Jump (Boys)	1-250, 2-277
Standing Double High Jump (Boys)	1-250
Standing High Jump (Boys)	1-251
Standing Leap and Jump (Boys)	1-251
Three Standing Broad Jump (Boys)	1-251

PHYSICAL ACTIVITIES FOR GRADE SEVEN

GAMES

Baseball (Boys) P	1-274, 2-263
Basketball (Boys) G	1-276, 4-115
Chain Dodge Ball G-P	1-315
Chain Tag G-P	1-315, 4-160
Fox and Geese G-P	1-315, 3-92, 4-138
Hit Pin Baseball P	1-279
Horse Shoes P	1-280, 4-242
Maze Tag G-P	3-131, 4-149
Nine Court Basketball (Girls) G	1-282, 4-117
Nose and Toe Tag G-P	1-315, 4-34
Pin Football P	1-286
Poison G-P	1-315, 2-234, 3-148, 4-128
Schoolroom Volley Ball S	1-287, 3-402
Soccer P	1-287, 2-263, 4-182
Sponge Ball G-P	1-290
Tennis P	1-291
Tether Ball P	1-293, 3-409
Volley Ball G-P	1-294, 2-262, 3-413, 4-202
Whip Tag P	1-316, 3-206, 4-205

MIMETIC EXERCISES

Baseball Pitching	1-317
Baseball Play	1-317
Horseback Riding	2-65
Jumping Jack	1-317
Revolving Light	1-317
Start of Race	1-316, 2-63
Windmills	1-316

RHYTHMICAL ACTIVITIES

		Record Numbers
Highland Schottische	1-301, 2-206	Col. A3039 Vic. 21616
Irish Lilt	2-204	Col. A3061 Vic. 21616
Old Dan Tucker II (American)	1-303	Vic. 20447

Pop Goes the Weasel III	1-303	
Rye Waltz	1-304	
Sailors Hornpipe (English)	2-207	Col. A3054 Vic. 21685
Schottische Couple Dance	1-305	
Tantoli (Swedish)	2-208	Col. A3054 Vic. 20992
The Crested Hen (Danish)	1-300	Vic. 21619
The Mangle (Danish)	1-302	
Uncle Sam's Frolic	1-306	

RELAY RACES

A Dozen Ways of Getting There	
G-P	1-312
Ball Passing Relay G-P	1-312
Chariot Race G-P	1-312
Goal Throwing Relay G-P	1-313, 2-250
Hoop Rolling Relay G-P	1-313
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OUTLINE OF HEALTH INSTRUCTION AND PHYSICAL EDUCATION FOR ELEMENTARY GRADES

CONDITIONS FOR GROWTH AND DEVELOPMENT	OBJECTIVES	ACTIVITIES AND PROCEDURES		EVIDENCES OF PUPIL GROWTH IN TERMS OF ATTITUDES, PRACTICES OR SKILLS, AND KNOWLEDGE
		Type situations providing opportunities for health practices AT SCHOOL	Type demonstrations or dramatizations of health practices AT HOME and THE COMMUNITY.	
Favorable Environment	Help Pupils To build emotionalized attitudes toward worthy practices; To make desirable adjustments to health situations in their environment; To enjoy favorable conditions and practices; RELATED TO			
	1. Cleanliness	1. Morning survey Use of drinking fountain Care of any food in school room	1 Preparation for school Preparation for body bath	1. Prefers to live in clean environment Is developing habits of cleanliness to make adjustments for better living Increasingly learns why cleanliness is necessary for the maintenance of good health
	2. Fresh air and sunshine	2. Adjustment of shades Reading of thermometer Attention to ventilation Regulating clothing for temperature in room	2 Adjustment of windows for light	2. Enjoys fresh air Participates in outdoor activity when weather permits Increasingly learns the value of fresh air and sunshine
Satisfactory Nutrition	3. Wholesome food	3. Care of lunch box at school Preparation for lunch Choice of food at the school cafeteria Eating of lunch Weighing of children	3. Preparation for breakfast Eating a wholesome breakfast Packing a school lunch	3. Likes to eat and drink wholesome foods Tries to form tastes for other wholesome foods and drinks available for him Increasingly learns why good nutrition is necessary for growth and development
	4. Necessary rest and sleep	4. Relaxation periods Rest period for pupils when recommended by physician	4. Preparation for bed Care of the bed	4. Appreciates benefits of adequate rest and sleep Sleeps required hours necessary for his best development Increasingly learns the importance of adequate sleep and rest and understands conditions under which sleep is most beneficial
	5. Wholesome play and work involving big muscles and developing physical skills	5. Running, tossing or throwing large balls Construction with wood Blackboard or easel drawing	5. Use of balls as throwing, pushing, kicking Home tasks as sweeping, dusting beds, marketing	5. Finds pleasure in vigorous play and work activities by himself and with the group (should be adapted to one's ability) Is gaining muscular coordinations through play and through the use of tools Increasingly learns values of recreational activities as well as those of worthwhile tasks
Opportunity for Expression	6. Good posture	6. Adjustment of seats and desks (size and illumination) Sitting and standing Reading and writing Passing to classes	6. Choosing suitable chair at home Position taken for various work at home	6. Appreciates the importance of good posture Habitually sits, stands and walks well Increasingly learns advantages of good posture (The first and last of this group are to be stressed in grades above the second)
Protection from Diseases on Vitality ..	7. Prevention, detection and correction of health handicaps	7. Adjustments for hearing and vision of handicapped children Wearing of glasses prescribed Periodical health examination	7. Reading at home (light) Selecting a pair of shoes Selection, use and care of toothbrushes Care and adjustment of glasses	7. Desires to keep one's body in the best condition possible Develops practices that maintain good health and avoids those that may cause health handicaps Increasingly learns why health practices and also knowledge of one's health limits are necessary for the best maintenance and protection of the body
	8. Prevention of communicable disease and other illness	8. Use of handkerchief Use of pencil, textbook Use of school toilet Washing of hands after visiting toilet	8. Hand washing Observation of regulations of antiseptic. Use of individual cups, silverware, or towel	8. Wishes to protect not only himself but others from communicable disease Avoids practices which may help to spread communicable disease Increasingly learns how health may be maintained in the community and his share in it
	9. Suitable clothing	9. Removal of outside wraps in school Wearing wraps outdoors	9. Selection and care of clothing	9. Finds satisfaction in wearing suitable clothing for school activities Gives clothing proper care Increasingly learns how and why to select suitable clothing
Protection from Physical Injury	10. Safety education	10. Development of pupil responsibility for care of desks, wraps, and material used by children Fire Drill. Play activities	10. Crossing street Going to school the safest way Walking on highway. Seeing flames when clothing is on fire	10. Is willing to work in cooperation with others for safety Follows safety precautions Increasingly discovers safer ways of carrying out the daily program of living and learns necessity for practicing measures of safety
	11. First aid measures	11. Giving first aid to minor injuries Keeping calm in emergencies	11. First aid for minor injuries at home Calling a physician	1. Takes precaution in unnecessary risks with minor injuries Seeks first aid remedies when injured Increasingly learns how to give simple first aid treatment and the necessity of calling a physician in case of major accidents
Provision for Desirable Emotional and Social Experiences	12. Non-use of stimulants and narcotics	12. Satisfying thirst with water Choosing wholesome drinks at cafeteria	12. Importance of safe water Training of Scouts or athletes	2. Desires to use only beverages that have food value and to avoid beverages or narcotics that hinder growth and development Develops skills that one may participate with satisfaction in wholesome activities adapted to his physiological development Knows the effect of the use of tobacco, alcohol and other narcotics, especially on the growing boy or girl (in upper grades)
	13. Wholesome personality	13. Facing experiences squarely and making adjustments cheerfully and satisfactorily to school situations, e.g., meeting new pupils and teachers, failing to win games, or solving problems	13. Facing disappointment when pleasure trip is postponed Making adjustments in a new home Showing self-control in public when subjected to rudeness	3. Is willing to face problems that come into his experience Increasingly adapts his way of living to meet the needs for becoming a desirable and useful citizen Increasingly learns the value of self-control, cheerfulness and poise together with physical well being in maintaining mental health

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